Polycom ReadiManager LX100 Device Management Guide

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Polycom, Inc.

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Welcome to Polycom ReadiManager LX100

Polycom ReadiManager LX100 is a pre-installed server with software that provides scheduling and management for video, audio, and data conferencing. A client/server software tool, Polycom ReadiManager LX100 encompasses scheduling and centralized management for your enterprise-wide video communications network and devices. It also serves as a directory server for video codecs.

Polycom ReadiManager LX100 includes four modules:

Scheduling Administration
Device Administration
System Configuration
Scheduling Wizard

In addition, this simple-to-use yet powerful video scheduling and management application fully integrates with Microsoft® Outlook® and Lotus Notes.

This guide provides detailed information about the Device Management module. For details about Scheduling and the Scheduling Wizard see the *ReadiManager LX100 Scheduling Administrator's Guide* and the *ReadiManager LX100 Web Scheduling Guide*. For details about System Configuration, see *ReadiManager LX100 System Configuration Guide*.

Device Management

The Device Management module in Polycom ReadiManager LX100 enables the administration and centralized management of your enterprise-wide video communications network. Using Device Management, administrators can proactively monitor devices for call status, errors, and warnings. Through the Remote Alert Notification Feature, administrators can be paged on their cell phones with updates on device status. The Device Management module provides device maintenance features such as Software Update and Provisioning.

End Users will enjoy a centralized address book with intelligent dialing built in. Administrators will appreciate the minimal time required for upkeep - a nearly zero administration directory.

Administrators can also run various Call Detail Record reports, view Network Status reports, and Device Tracing logs.

Scheduling and Scheduling Administration

Polycom ReadiManager LX100 makes life easier for people who want to schedule their own meetings with or without video, for the conference administrator who wants to manage videoconferences from setup to breakdown, and for the network administrator who monitors the reliability of video networks.

Welcome to Polycom ReadiManager LX100 (continued)

Polycom ReadiManager LX100 includes a highly configurable scheduling application that uniquely enables users to schedule video calls right from an Outlook or Lotus Notes interface or a web interface. The users choose the resources that need to be scheduled from the same appointment window when scheduling a meeting that doesn't require video.

One of the unique features that Polycom ReadiManager LX100 has is its patent pending bandwidth reservation system that schedules bandwidth for the conference.

The support for MCUs includes the ability to monitor MCU port availability. When more than one MCU is deployed on the network, scheduling decisions for multipoint calls will be based on zone location and port availability.

Conferences scheduled through Polycom ReadiManager LX100 become a manageable entity. Conferences can be managed from Microsoft Outlook, Lotus Notes, and from two web interfaces. Endpoints can be added to, removed from, or swapped for any given conference. Conferences can be remotely restarted or extended from the Manage Conference interface.

With the Scheduling and Scheduling Administration modules of Polycom ReadiManager LX100, you can:

- Schedule conferences through the web, Microsoft Outlook, or Lotus Notes, reserving required video and audio equipment and resources
- Manage conferences
- Run reports for Call Records, Video Utilization, and Troubleshooting and create other custom reports

The Scheduling Administration module also provides the ability to define and maintain information about your video network topology, resources and equipment, users and user permissions, and other system management.

System Configuration

The System Configuration module is used primarily when you first set up Polycom ReadiManager LX100, and later, if you need to make changes to the configuration.

In addition, this module gives you access to License Management, if you purchase additional seats, and to Advanced Setup, through Microsoft Windows Remote Desktop.

For additional information, see the online help in the System Configuration module.

1 Getting Started

Welcome to the Device Management of Polycom® ReadiManager™ LX100, a client/server software tool designed to enable and support centralized management of your enterprise-wide video communications network.

About this Guide

This User Guide provides detailed information about the product and how to operate it. This manual is designed to be used as a reference tool for Polycom video communications network management.

Conventions used

NOTE: Points out that the features and functionality or instructions noted are crucial.

Bold Text: Indicates that these are command buttons or terms emphasizing a function in ReadiManager LX100.

AAA > BBB > CCC: Represents a menu or selection tree.

"Items encased by quotes" are referring to when the user highlights an on-screen item with the mouse.

Endpoint Software Requirements

V-Series Software

- All software versions are supported

ViewStation® Software

- ViewStation 7.0 and ViewStation FX 5.0 or greater

ViaVideo® Software

- ViaVideo 5.0 or greater

iPower™ Software

- iPower 5.0 or greater

PathNavigator™

- PathNavigator 1.0 or greater

MGC™

- MGC version 5.0 or greater

WebCommander™

- WebCommander 4.0 or greater

VTX™1000

- VTX Software Release 1.30 or greater

Before You Begin

Endpoint setup

V-Series

Make sure the unit is connected to the LAN and is turned on. V-Series will auto detect LAN properties and provide guidance in setting up this feature.

ViewStation Support

For ReadiManager LX100 to fully support management and monitoring of the ViewStation, you must update ViewStations software to at least Version 7.5, otherwise Polycom ReadiManager LX100 cannot provide the system status information for ViewStations that are not yet updated.

For instructions on connecting your ViewStations to your LAN please refer to page 114.

ViaVideo Support

Install the latest ViaVideo software version (5.1 or greater). Updating the ViaVideo software cannot be done through the Software Update feature. This must be done manually from each PC unit.

Make sure the PC is connected to the LAN.

For iPower Support:

Install the latest iPower software version (5.5 or greater). Please refer to page 115 for instructions on enabling ReadiManager LX100 support on iPower.

For SoundStation VTX 1000 Support:

- Upgrade SoundStation VTX 1000 Software to release 1.30 or later.

NOTE

If a SoundStation VTX 1000 has code that is older than version 1.30 (1.29 or earlier), the phone must be manually updated to version 1.30 through the SoundStation VTX 1000 user interface (see Administrator's Guide) before the ReadiManager LX100 can provide remote software support.

- Install at least 1 Rapidport multi-port modem on the ReadiManager LX100 server. Upon installation of the modem with the installation CD provided, be sure that the very latest modem drivers are installed by downloading them from -

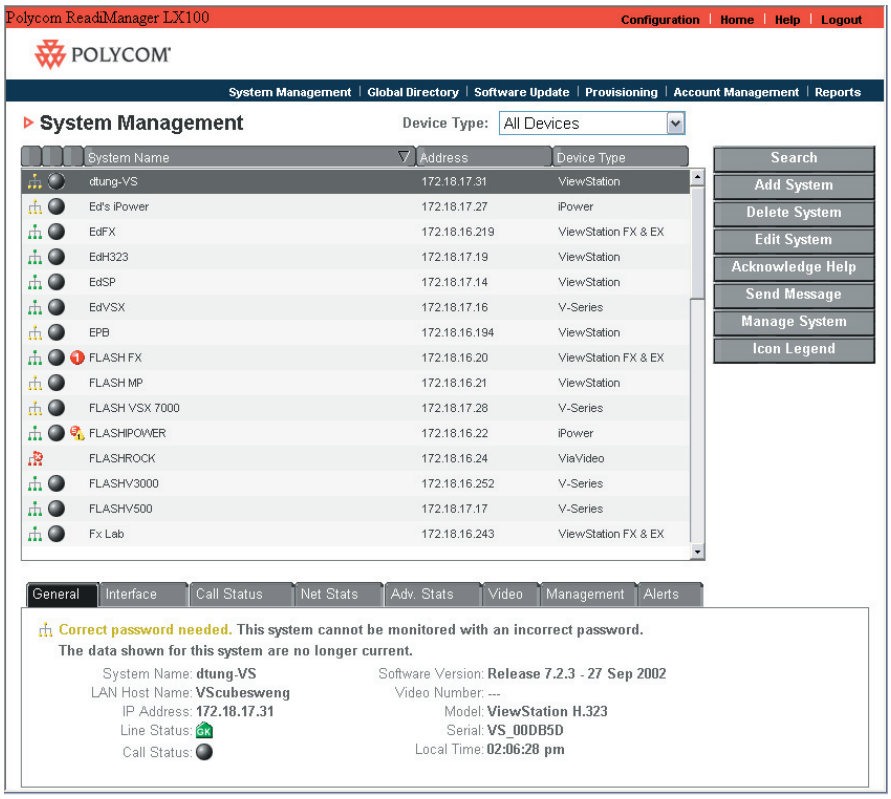
  http://www.ionetworks.com/support/epdrivers.jsp#E2K

- Install the software on a computer that meets the minimum system requirements ; SoundStation VTX 1000 support is provided in ReadiManager LX100 software releases 6.10 and later.

Device Management Overview

The program's default page is the System Management page. The main navigation on the left hand side of the screen provides easy access to all of the sections of the Device Management System.

Figure 1.10 Device Management System product overview



Feature summary

System Management
Add, edit and delete systems from the database.
Provides details of video endpoints, PathNavigator, WebCommander and Other Device status
Remote Management of Polycom video endpoints

Global Directory
Creates, edits, archives, imports and exports address books
LDAP and ILS supports replication of address entries for different Global Directory Servers
Automatic registering of video endpoints on the LAN into the Global Directory

Software Update
Polycom video endpoints can be updated immediately or at a scheduled time
Provides status of software updates and maintains a log for troubleshooting failed updates

Device Management Overview

Feature summary continued

Provisioning

Push new configuration settings to a group of Polycom group video endpoints

Create separate profiles tailored to different Polycom group video endpoints

Account Management

Set up accounts used to track video calls

Reports

Call Detail Record – Details information of ViewStation, V-Series, iPower, and ViaVideo video calls

Network Status – Describes statistics of endpoint usage

Device Tracing – Diagnose endpoint issues by logging endpoint activity

System Configuration

Server Preferences – Configure defaults for Software Update, Provisioning, Email Remote Alerts and Device specific behavior

Remote Alert Notification – Set criteria for email alerts and SNMP alerts

NOTE

SoundStation VTX 1000 features are limited to 1) phone database configuration, 2) software update/upgrade scheduling and status. All other features listed herein which are related to IP endpoint support do not apply to SoundStation VTX 1000 which is soft modem-enabled circuit switched (analog) telephony device.

Product Overview

The table below shows which ReadiManager LX100 features support which devices.

Features	ViewStation, FX and EX, V-Series	ViaVideo	iPower	VTX 1000	MGC PathNavigator WebCommander	Other Device
System Management	X	X	X	X	X	X
Global Directory	X	X	X	No	No	No
Software Update	X	No	X	X	No	No
Provisioning	X	No	X	No	No	No
Account Management	X	No	No	No	No	No
Reports	X	X	X	No	X	X
Remote Alert Notification	X	X	X	No	X	X

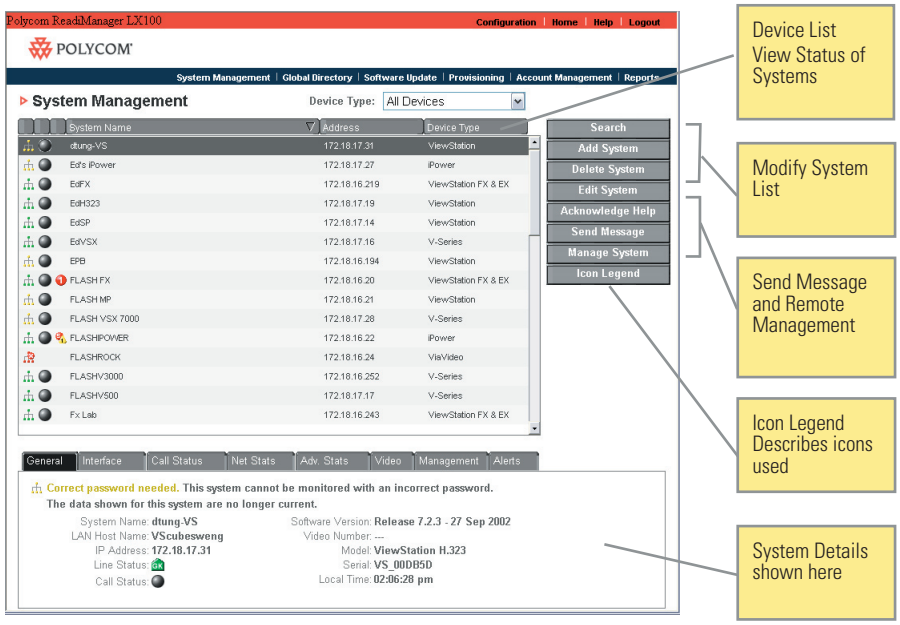
2 System Management

System Management Overview

The System Management window provides a list of Polycom endpoints and third party devices connected to the network. Management of your Video Communication network begins here.

Device Management enables the monitoring and management of video endpoints. Also, monitoring capabilities have been extended to include other Polycom management tools such as the MGC, WebCommander, PathNavigator and third party endpoints.

Figure 2.1 System Management

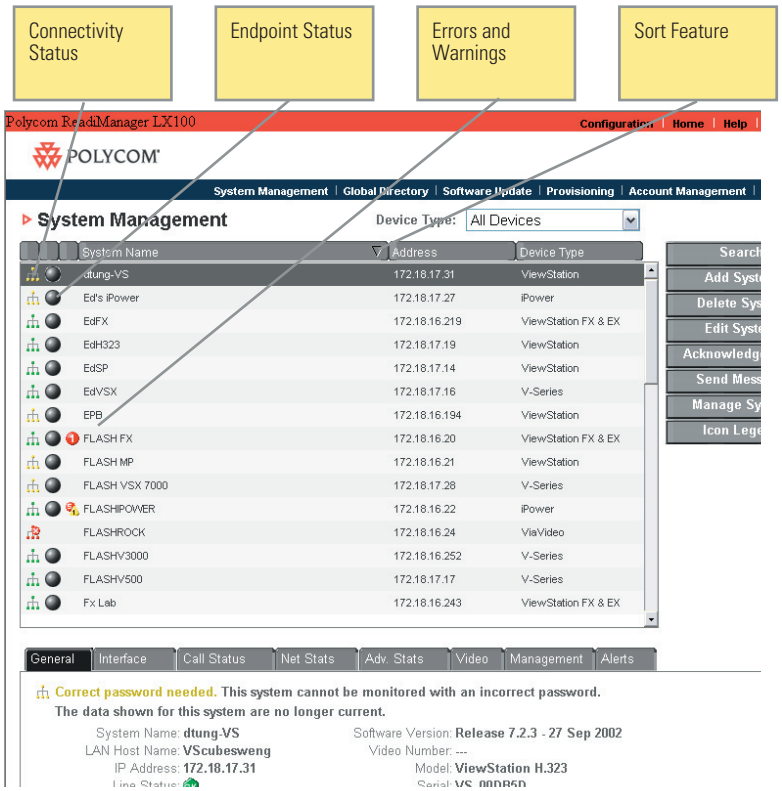

Polycom ReadiManager LX100
Configuration | Home | Help | Logout
POLYCOM
System Management | Global Directory | Software Update | Provisioning | Account Management | Reports
System Management
Device Type: All Devices
System Name
Address
Device Type
dtung-VS 172.18.17.31 ViewStation
Ed's iPower 172.18.17.27 iPower
EdFX 172.18.16.219 ViewStation FX & EX
EdH323 172.18.17.19 ViewStation
EdSP 172.18.17.14 ViewStation
EdVSX 172.18.17.16 V-Series
EPB 172.18.16.194 ViewStation
FLASH FX 172.18.16.20 ViewStation FX & EX
FLASH MP 172.18.16.21 ViewStation
FLASH VSX 7000 172.18.17.28 V-Series
FLASHIPOWER 172.18.16.22 iPower
FLASHROCK 172.18.16.24 ViaVideo
FLASHV3000 172.18.16.252 V-Series
FLASHV500 172.18.17.17 V-Series
Fx Lab 172.18.16.243 ViewStation FX & EX
Search
Add System
Delete System
Edit System
Acknowledge Help
Send Message
Manage System
Icon Legend
General | Interface | Call Status | Net Stats | Adv. Stats | Video | Management | Alerts
Correct password needed. This system cannot be monitored with an incorrect password.
The data shown for this system are no longer current.
System Name: dtung-VS
LAN Host Name: VScubesweng
IP Address: 172.18.17.31
Line Status: ok
Call Status:
Software Version: Release 7.2.3 - 27 Sep 2002
Video Number: ---
Model: ViewStation H.323
Serial: VS_00DB5D
Local Time: 02:06:28 pm
Device List View Status of Systems
Modify System List
Send Message and Remote Management
Icon Legend Describes icons used
System Details shown here

System Management Console

Overview

- The System status of listed endpoints can be seen at a glance
- Search for, add and delete systems to/from your network
- Remotely administer a system using the Manage System button
- Send Message button allows for communication between the System Administrator and the video endpoint user
- More detailed information for a specific device is summarized in the System Information window, which is right below the system list

Figure 2.2 System Management



The system list defaults to an alphabetical listing of the device names. Since ReadiManager LX100 can manage different devices, a pull down menu allows the display of the list by device type or all devices.

You can modify the systems list, send messages or manage video endpoints by using the Utility buttons on the right. Below the system list, you can view status information specific to the highlighted device in the system list, including call status, line status and statistics on the video call connection.

System Management Console

The table below details what the icons represent for each column in the System Management Page.

> **NOTE**
> SoundStation VTX 1000 features supported below include Connectivity Status, System Name, Device Type and Address, with the address indicating the phone number (or extension) of the system in question, not the IP address. Connectivity Status indicates that the SoundStation VTX 1000 in question has been configured for remote software support, but it not an indication of real-time connectivity status.

Column header	Description
ReadiManager LX100 Connectivity Status	Green network icon - Indicates that ReadiManager LX100 can successfully communicate with the system. Green network icon with log - ReadiManager LX100 is logging device information. Red network icon- The server is unable to communicate with a system. This may indicate: • System power off, malfunctioning • System network cable disconnected • Network switch or hub malfunctioning Yellow network icon - Indicates that ReadiManager LX100 is able to query the device, but is unable to receive status updates. The following are prioritized in the order you should check to diagnose the problem. • Endpoint password required • Software update required for endpoints • Manager URL not set in the video endpoint
Endpoint Status	The video endpoint is not in a call. A video endpoint is in a call. When a video endpoint is initiating a call, this column will show the change in ball state starting with a blue ¼ sphere, to a yellow ½ sphere, then to an orange ¾ sphere progressing to the fully connected call, a green sphere. These spheres represent the progress of connecting the conference call. A video endpoint user in a conference room can send a message to the system administrator by requesting help. When the server receives a help-request alert, a red cross will appear in this column until help-request is acknowledged.

Column header	Description
Errors and Warnings	The number on the icon indicates the number of errors or warnings occurring with the system. Errors and warnings can occur with a system concurrently. For this case, the number of errors and warnings occurring with a system will appear on the combination icon. This information will be detailed on the Alerts Tab. Errors are generally critical to the operation of the unit. Warnings indicate that the user may be inconvenienced during the operation of the unit. Error Types ISDN Line error The video endpoint fails to detect signal from ANY of the ISDN lines. For example, if an endpoint with three ISDN lines has 2 lines working but 1 line is down, then this unit gets a red arrow. Lost Gatekeeper The video endpoint cannot find the gatekeeper that it normally registers with. The gatekeeper might be in an offline state. Microphone unplugged The iPower is detected to have unplugged microphone from the main unit of the video endpoint. Camera unplugged The iPower is detected to have an unplugged camera from the main unit of the video endpoint. Internal System error The iPower is detected to have an internal system error. Cannot find server This pertains to Web Commander and Other Device. ReadiManager LX100 is detecting HTTP errors coded either 4XX or 5XX from the device's web server. Internal System Error The iPower system has experienced an unexpected malfunction. Restart the system. If the problem persists, contact Polycom Technical Support.

System Management Console

Column header	Description
Errors and Warnings cont.	Warnings Low Battery The battery in the video endpoint remote control is running low. Lost Directory Server The iPower cannot display the Global Directory. The Directory server may be offline. Web Server Redirect Redirect response string (HTTP 3XX) returned from an Other Device server. iPower User Interface not running The iPower user interface is not operating
System Name	Name of endpoint
Address Name	IP address of endpoint
Device Type	Identifies device type

Modifying the System List

The utility buttons on the right hand side of the screen allow you to change the information in the system list.

Search	Search for systems on the network which have not been added to the database. After performing a search, system can be added from the query results
Add System	Allows you to add a system to the database to be managed by ReadiManager LX100
Delete System	Removes a system from the database
Edit System	Informs ReadiManager LX100 a system IP address and password change or enables device tracing for a system.

Searching for Systems

One way to add a system is to search for units of a certain device type. The search function allows you to find video endpoints connected to the network but not yet managed by the program.

1. To search for addresses, click on Search. The search dialog box appears.
2. ViewStation, ViewStation FX and EX, V-Series, ViaVideo and iPower are default to check. If desired, uncheck the device type that does not require search.
3. Enter the Start and End IP addresses. The End IP field will auto complete the range that you entered in the Start IP field.
4. Click on OK to start search. All of the systems found on that subnet not yet managed by ReadiManager LX100 will be listed.
5. The results will return with all systems auto-selected. Deselect the systems you do not wish to Manage, then click on **Manage Selected Systems**.

Modifying the System List

Adding a System

Use this feature to add Polycom video endpoints, SoundStation VTX 1000 conference phone endpoints, and management programs or other (third party) device to the ReadiManager LX100 database.

Adding a ViewStation

1. Click on **Add System**. A new window will appear.
2. Choose the device type you want to add with the pull down menu.
3. Enter the IP address or LAN host name of the system and the password if the system has a password set.
4. Click on **OK**. The System Management window will refresh and the device name and address will appear.

NOTE

A endpoint cannot be added to the database through the "Add System" function without specifying that password in the password field if it has an administration password set on it .

NOTE

The characters used for the endpoint system name must conform to the character set found in the endpoint soft keypad.

Adding a ViewStation FX and EX.

Follow the same steps for adding a ViewStation.

Adding a V-Series

Follow the same steps for adding a ViewStation.

Adding a ViaVideo

Follow the same steps as for adding a ViewStation.

Adding an iPower

Follow the same steps as for adding a ViewStation. If the admin password is set on the iPower system, it needs to be entered here. To learn how to set the iPower system password, refer to page 115.

Adding a VTX 1000

Follow the same steps as for adding a ViewStation. Enter each endpoints' phone number (versus IP address) with requisite prefixing and dialing codes, just as if a phone call (versus modem call) were being placed to the endpoint.

Modifying the System List

Adding a System

Adding a PathNavigator or a WebCommander

1. Click on **Add System**. A new window will appear.
2. Choose PathNavigator or Web Commander from the pull down menu.
3. Enter the IP address or LAN host name of the system and the name you would like to identify this system by.
4. Click on **OK**. The System Management window will refresh and the device name and address will appear.

Adding an MGC

1. Click on **Add System**. A new window will appear.
2. Choose MGC from the pull down menu.
3. Enter the IP address or LAN host name of the system and the name you would like to identify this system by.
4. Enter the Login and password for the MGC.
5. Enter the computer name which is the name of the ReadiManager LX100 and is displayed in the MGC Manager UI as part of the "Connection" information.
4. Click on **OK**. The System Management window will refresh and the device name and address will appear.

NOTE
An MGC-25 is not manageable by ReadiManager LX100.

Adding an Other Device (Third Party)

Third party devices can be added to ReadiManager LX100 for monitoring if it has a web-based interface.

1. Click on **Add System**. A new window will appear.
2. Choose the device type "Other" from the pull down menu.
   Enter the following information:
   - IP Address or LAN Host Name
   - Port: Port on the device used to access the device's management interface.
   - Name: The name that you would like to call the system
   - File (Optional): Web management entry file. If the device's web server has the appropriate default website; no file is necessary

   Management URL: This is a read only field which displays the specified URL which ReadiManager LX100 will use to access the web interface.
3. Click on **OK**. The System Management window will refresh and the device name and address will appear.

Modifying the System List

Editing a System

Normally, IP address changes are automatically detected for ViewStations, V-Series and ViaVideos. However, certain circumstances can arise where the server and the endpoints are unable to communicate with one another and this automatic detection is not possible. This is especially true in the case of IP address changes for WebCommander and third party endpoints. In this case, the IP address stored in the database must be updated manually.

Device Tracing allows for all video endpoint actions to be traced and recorded in a Device trace log. Device tracing can be enable here in the Edit System window or in the Reports > Device Tracing page in ReadiManager LX100.

For SoundStation VTX 1000, tracking endpoints and correct/current phone numbers is a manual process. It is recommended that once the SoundStation VTX 1000 endpoints are configured, the administrator set a policy that he/she be contacted in the event that SoundStation VTX conference phones are relocated. This will assure that the Polycom ReadiManager LX100 has the correct phone number for software updates and upgrades.

Edit System

1. Select an Endpoint and click on Edit System. A dialog box will appear.
2. Enter the relevant information for the system or enable device tracing.
3. Click on **OK.**

Password

A Polycom group video endpoint can be managed when the password set in ReadiManager LX100 matches the password set on the endpoint. If the password is changed manually from the endpoint, you must update ReadiManager LX100 with the new password, otherwise the system can longer be managed. By default, endpoints do not have an administration password set.

NOTE

Entering a password here does not mean that the administration password for a ViewStation has been set. If an administration password is needed, then it must be set at the unit.

Modifying the System List

Deleting a System

1. Select the device you wish to remove from the list.
2. Click on **Delete System**. The Delete System dialog box appears which states, "Are you sure?"
3. Click on **Yes** to confirm.

Other System Management Functions

Acknowledge Help	Clears help icon and sends a message to the user
Send Message	Sends a message to the ViewStation or ViaVideo
Manage System	Launches management web page for the selected device

Below is a table showing which buttons support which device.

Device Type	**Acknowledge Help**	**Send Message**	**Manage System**
ViewStation and FX/EX	X	X	X
V-Series	X	X	X
ViaVideo	X	X	X
iPower	X	X	X
VTX 1000	No	No	No
MGC	No	No	X
PathNavigator	No	No	X
WebCommander	No	No	X
Third Party Device	No	No	X

Acknowledge Help

While operating a video endpoint, a user might request help from the system administrator. When help is requested, a red cross will appear next to the user's device in the System List to signal the administrator.

To clear the help request indicator and send a message:

1. Select the endpoint signaling help.
2. Click on **Acknowledge Help**. A window will pop up with information sent by the user and a space to enter a message to send back to the user.
3. Click on **Send**.

Sending a Message

Click on this button to send a text message that will appear on the monitor for the selected Polycom endpoint for a brief period. The text message can be up to 100 characters in length. This feature can be used to discreetly notify the endpoint user that their scheduled conference time has expired.

To send a message:

1. Select the video endpoint you would like to send a message to.
2. Click on **Send Message**. A pop up window will appear.
3. Type the message you wish to send and click on **OK**. The message will appear on the device's monitor for a brief period of time.

NOTE
If the endpoint is in a call, the far site will not see the message.

Other System Management Functions

Manage System

Polycom Video Endpoints

Polycom video endpoints have an embedded web server that allows you to manage the unit from a remote PC on the same local area network. Any endpoint can be managed by calling up it's IP address in any web browser. To remotely manage a system through Polycom ReadiManager LX100, select the system of interest in the system list and then click on the Manage System button. A new browser window will appear displaying the endpoint's web page.

Remote Management allows you to:

- Run diagnostic tests on a system
- Change the system configuration for the endpoint
- Place a call from the system for line status verification

Certain video endpoint models require specific setups in order to access the web interface. See below.

ViaVideo

For versions below 5.0:

To manage ViaVideo, the "Web Access Password" must be set through ViaVideo. If the "Web Access Password" is not configured, ReadiManager LX100 cannot access the web interface of ViaVideo.

To set the web access password from the ViaVideo interface, go to:

System Information > Setup > Global Services > Global Management

Enter the "Web Access Password".

For 5.0 and above

To set the web access password from the ViaVideo interface, go to:

Setup > Web/GMS >

Enter the "Admin Password".

iPower

iPower like the ViewStation also has an embedded web server that allows remote administration. Manage System launches iPower WebRemote. WebRemote lets you make calls, configure the system, diagnose operating problems, and monitor system performance from a web browser running on a remote PC. In order to use WebRemote, it must be enabled on the system.

Other System Management Functions

IPower cont.

After launching WebRemote, the password has to be manually entered. This is the administrator password on the iPower system. If you are already logged in to a Windows domain account that has administrator privileges on the iPower system, then you are automatically authenticated when launching WebRemote. Therefore, a password is not required.

MGC

When a MGC is selected from the System List and the Manage System button is clicked, you will be asked to download an object that is used to detect whether MGC Manager is located on your machine and where that location is. If you decline to download this object, then Polycom ReadiManager LX100 cannot launch MGC Manager, if installed on this client, when the Manage System button is clicked for a specific MGC. When this object is installed, clicking on the Manage Button will result in either launching MGC Manager or informing you that the MGC Manager is not installed on this client machine.

Polycom Management Applications – WebCommander and PathNavigator

When the application is selected and Manage System is clicked, the application's web management page is displayed in a separate browser window.

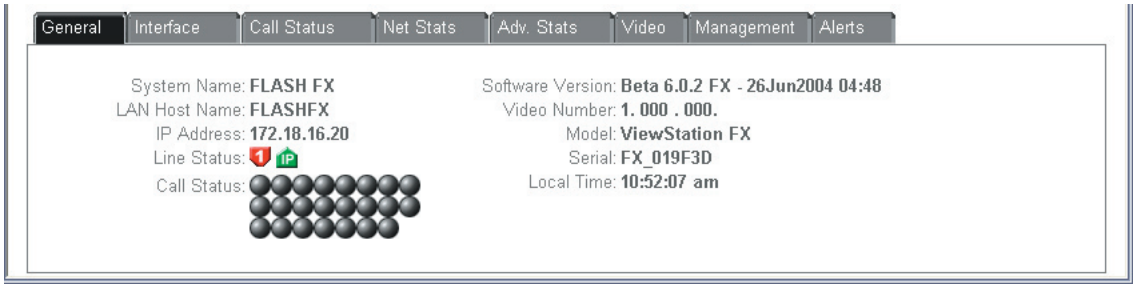
Other Device

When a third party device is selected, the website that opens is the URL specified when this device was added to ReadiManager LX100. If the URL is incorrect, the information for the selected device can be corrected by using the "Edit System" Feature.

System Information Window

This window contains information specific to the device selected in the System list. Below is a screenshot of System Information tabs for a ViewStation. The tabs shown are specific to each model type.

Figure 2.3 System Management Tabs



Detailed information regarding the tabs for each device is found in the appendix on page 117.

General	With the exception of the General Tab, the descriptions below pertain to the video endpoints. Displays general system information for video endpoints, server status for WebCommander and response strings for Other Device
Interface	Reveals the network configurations for the selected video endpoints
Call Status	Detailed call status information
Network Stats	Describes the video and audio protocols used
Advanced Stats	Displays audio and video transmission rates
Video	Shows video sent and received by the selected ViewStation
QoS	Displays the components that allows the differentiation and preferential treatment of network traffic for iPowers
Details	Displays detailed information on video and audio configuration for ViaVideo
Summary	Displays summary information on endpoint and bandwidth statistics in PathNavigator
Management	Displays the URL of the different servers that manage the selected video endpoints
Alerts	Lists errors and/or warnings that are occurring with the selected video endpoints

3 Global Directory

The Global Directory allows you to manage an enterprise wide address book server that can support ISDN and IP dialing.

With automatic video endpoint registration into the Global Directory, dialing information, country codes and dialing rules are automatically captured and updated. So calling anywhere in the world will be as simple as using the speed dial function on your telephone.

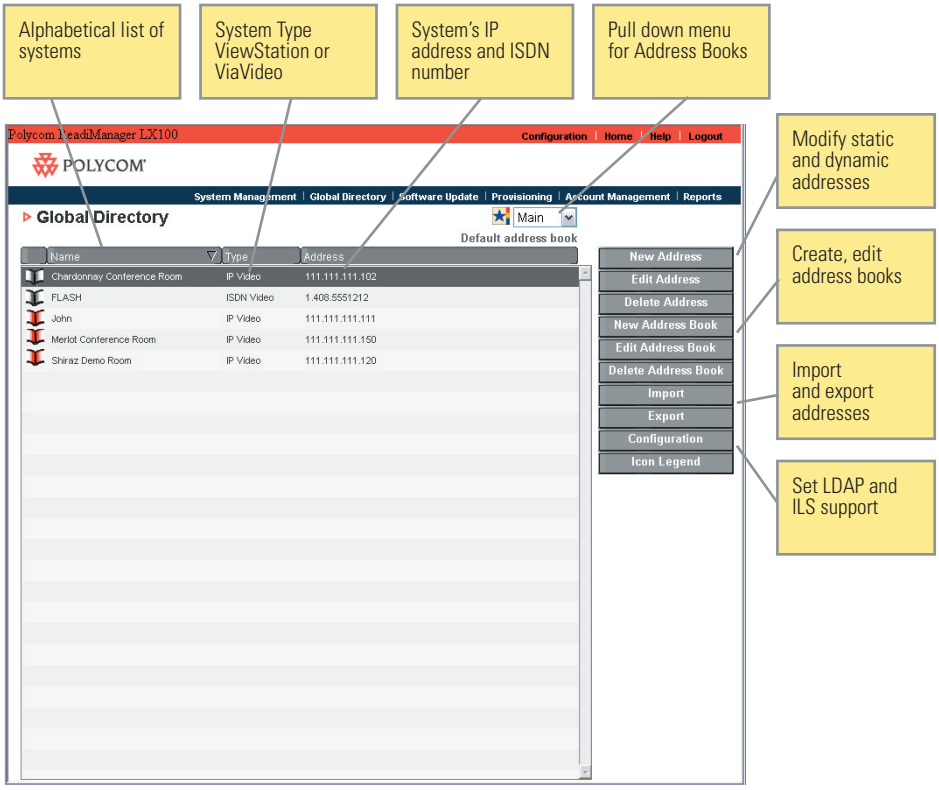
The replication of Global Directory entries uses LDAP (lightweight directory access protocol) and ILS (internet locator server) support. For more detailed information about this feature refer to page XX.

Global Directory Console

Address Book Pull Down Menu

The Address Book Menu lists the Address Books created in Polycom ReadiManager LX100 or imported address books from other servers. The default address book is titled “MAIN” unless an administrator has modified its name. Other address books can be viewed by using the pull down menu.

Figure 3.1 Global Directory



Address window

The Address window lists the addresses for the selected address book. These entries include static, dynamic and replicated entries. Static entries are addresses that have been manually added to the database. Dynamic entries are endpoint entries that auto-register with Polycom ReadiManager LX100. Replicated entries are addresses that were replicated from another Polycom ReadiManager LX100 or Global Management System server through ILS or LDAP replication.

- The red booklet is an entry that has been dynamically added to the system.
- Devices with a white booklet are entries that have been added to the system manually.
- A blue booklet indicates that these entries are replicated entries from another Directory servers.

All of the information that is pertinent for calling by video is listed on this screen. The name and more importantly, the IP address or ISDN number is also listed. The right hand side of this window contains the utility buttons for address book modification and management, importing and exporting the Global Directory and for server configurations.

Global Directory Console

Multiple Address Books

Multiple address books can be stored in the Global Directory for different departments, countries, buildings, etc.

The accessibility of address books can be configured so to limit access of certain address books by a video user. The system administrator can restrict access to certain address books. For example, the CEO's address book may have restricted access. Therefore all video endpoints will not have access to the addresses in the CEO's address book. Setting restrictions on address books are made when editing the address of an automatically registered video endpoint. Refer to Editing an Address in the Modifying Address section to learn how to set these restrictions.

Modifying the Address Book

New Address Books

Upon installation of the program, the Global Directory will automatically contain a default address book that is accessible by all registered Polycom video endpoints. As long as a video endpoint is configured with the server's IP address it will dynamically register with the Global Directory and appear in the default or main address book. Hence, the Global Directory will contain addresses of video endpoints pointing to that server.

The Address Book utility is described below:

New Address Book	Create a new address book
Edit Address Book	Edit the name or description of the address book
Delete Address Book	Delete the address book form the pull-down menu

Creating an address book

1. Click on the **New Address Book** button. A new screen will appear.
2. Enter the new address book's name and description.
3. Click on **OK**. The new address book will appear in the pull down menu.

Editing an address book

1. Select the address book from the pull down menu.
2. Click on **Edit Address Book**. A pop up window will appear.
3. Enter the necessary information to correct the entry.
4. Click on **OK**.

Deleting an address book

1. Select the address book from the pull down menu.
2. Click on **Delete Address Book**. The Address book entry will automatically be removed from the list.

NOTE
You cannot delete the default address book

Modifying Addresses in the Global Directory

Modifying addresses in the Global Directory works differently with dynamic entries, static entries and replicated entries. Polycom video endpoints that automatically register their addresses into the Global Directory are dynamic entries. Static entries are addresses that are manually entered into the Global Directory.

Dynamic entries

Dynamic entries are Polycom video endpoint addresses that register automatically with the Global Directory. Polycom video endpoints register with the server every ten minutes. So depending on the state of the endpoint, dynamic entries will appear or disappear from the endpoint's view of the Global Directory. A dynamic entry for an endpoint can occur only if the endpoint is configured to report to the server. If the server's IP address is not entered in the appropriate field when setting up the endpoint, auto registration will not occur.

The information corresponding with a dynamic entry is supplied by the endpoint configuration. You cannot delete dynamic entries but the endpoint will reappear unless it is permanently removed by unregistering the endpoint.

Static entries

A static address is a record that is manually entered into the Global Directory. Static addresses are for video endpoints that cannot register with the server. Devices not located on the LAN and require manual entry can be entered into the Global Directory through the static entry mechanism. Static entries will remain in the Global Directory until it is removed.

Replicated entries

Replicated entries, designated with by a blue booklet, are video endpoint entries that have been replicated through Lightweight Directory Access Protocol (LDAP) or Internet Locator Server (ILS). When the replication of different ReadiManager LX100 directories occur, auto registered video endpoints and manually entered systems contained in the default address books are replicated to and from each server. As a result, entries from Directory A's default address book will appear in Directory B's default address book and vice versa. Note that entries contained in address books other than the designated default will not be replicated.

Although you can select a replicated entry in the Global Directory and can click on Edit Address, these entries cannot be edited. However, the specifics of a replicated system are detailed when Edit Address is performed.

Global Directory will also permit you to delete a replicated entry. However, deleting a replicated entry is useless because the deleted replicated entry will reappear during the next replication cycle.

Modifying Addresses in the Global Directory

As the administrator, there are three functions that are allowed in modifying Global Directory entries:

New Address	Creates a static entry in the Global Directory
Edit a static address	Edit the contact information
Edit a dynamic address	Change the list and view settings for the video endpoint entry
Delete Address	Deletes an entry

New Addresses

Creating a dynamic entry

In order for Polycom video endpoints to register with the Global Directory you must configure the video endpoint to report to this Global Directory server. Once the video endpoints are configured, the endpoints should register with the Global Directory after being powered off and then back on.

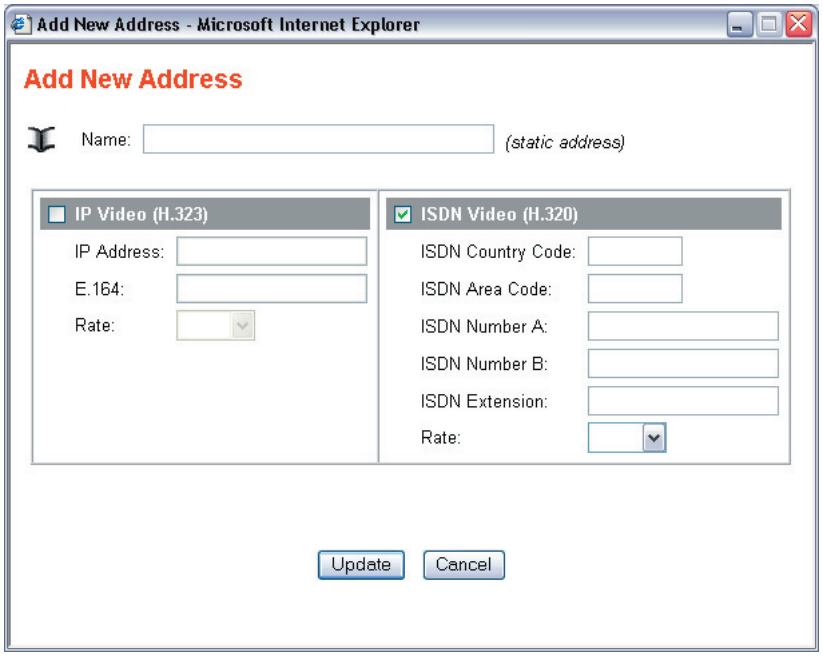
Creating a static entry

Unlike dynamic Global Directory registration, the information entered here is "static". If changes are made to the system such as the acquisition of a new ISDN number or IP address, the user must edit the information using the "Edit Address" function otherwise the information in the Global Directory will be outdated.

1. Click on the **New Address** button. A pop up screen will appear with entry fields requiring Name and Protocol.
2. Choose the type of entry by marking either the IP or ISDN checkbox.
3. Fill out the Name.
4. Fill out the appropriate information. The following page provides more information on the items displayed in the New Address window.
5. Once the appropriate information is filled out, click on **OK**.

New Addresses

Figure 3.2 Global Directory > New Address



For IP

IP Address: IP address of video unit

E.164: H.323 alias that this unit can be identified by as a dial string.

Rate: The maximum speed which this unit can be called at.

For ISDN

ISDN Country Code: Country code where unit resides

ISDN Area Code: Area or City code where unit resides

ISDN Number A: ISDN Number of unit

ISDN Number B: If this unit has a 2x64 ISDN line configuration, the second ISDN number.

ISDN Extension: Dialed Extension number, which comes after Gateway number in a dial string

Rate: Maximum speed which this unit can be called at.

Modifying Addresses in the Global Directory

New Addresses

Determining video call rate for ISDN entries

Entering the call rate information when creating a Static entries is relevant for non-Polycom endpoint entries. However, you can enter the call rate for Polycom endpoints that cannot auto register with the Global Directory.

For ISDN, the model of the video endpoint determines the rate and the maximum number of ISDN lines the endpoint is equipped with.

Determining video call rate for IP entries

For IP calls, like ISDN, the model of the video endpoint determines the call rate. There are many dependencies that affect the call rate of a video endpoint, which include type of model (i.e., ViewStation 128 can only make a 128 Kbps call), bandwidth capacity on the LAN and maximum upload and download speed through your ISP provider. The table below lists the maximum rate each family model can call at.

Endpoint Model	Maximum Rate
ViewStation FX	1920 Kbps
ViewStation and EX	768 Kbps
ViewStation SP	384 Kbps
iPower	4000 Kbps
V-Series	512 Kbps ISDN/ 2000 Kbps IP

Modifying Addresses in the Global Directory

Editing Addresses

Editing a dynamic entry

When a dynamic entry is selected, there is no option to edit the contact information. The Edit Address feature functions differently for dynamic entries: the administrator can select which address book a video endpoint will appear in. Also, the administrator can set the address book permissions for a video endpoint.

Selecting which address book the endpoint will appear in

1. Highlight the preferred video endpoint in the Address window.
2. Click on **Edit Address**.
3. In the right column, under the section View, contains a list of address books from the Global Directory. Click on the address books that this endpoint will have access to.
4. Click on **Update**.

Once the record is updated, the video endpoint will appear in the selected address books. Results can be viewed by selecting an address book from the pull down menu. The video endpoint entry will only appear in the address book(s) chosen.

To set permission access for viewing Global Directory entries from address books other than the default address book

1. Select the video endpoint in the Address window.
2. Click on **Edit**.
3. The right column, under the section View, contains a list of address books from the Global Directory. Click on the address books that the video endpoint will have access to.
4. Click on **Update**.

Once the record has been updated, the video endpoint can only access the selected Address books. The addresses that appear in the selected address book will also show up in the video endpoint's Global Address book.

Modifying Addresses in the Global Directory

Editing Addresses

Editing a static entry

You can only edit the contact information. Listing a static entry in multiple address books works differently than dynamic address books. This address will only appear in the address book that it was created in. In order for this address to be listed in multiple address books, it has to be entered into each address book.

1. Select the video endpoint of interest
2. Click on **Edit Address**.
3. Correct the information and click on **Update**.

Modifying Addresses in the Global Directory

Deleting an Address

Dynamic entries can be deleted but if the endpoint is still online, it will re-register within 10 minutes. If the endpoint is offline, then the entry will remain deleted until the endpoint comes back online. The Global Directory will allow you to permanently remove static entries. Since static addresses are manually added, these addresses will remain in the Global Directory until the entry is removed.

Deleting a Dynamic entry

For Polycom endpoints

If you want to permanently delete a Polycom endpoint from the Global Directory, delete the Global Directory Server IP address from the endpoint settings.

Deleting a static entry

Highlight Address and click on **Delete Address**. The address will automatically be removed from the list.

Importing and Exporting the Global Directory

Information on Importing the Directory

Click on this button to import a comma-delimited (.csv) address book exported from another Global Directory, which can be from a Global Management System server or Polycom ReadiManager LX100 unit. Use this feature to share address book information between sites that cannot register with the same Global Directory server. For example, a satellite office without a full-time Internet connection might want to periodically import address books from the corporate server. This allows a video endpoint at a remote office to have dialing information of other systems within that organization. These imported addresses will be normalized with GlobalDial for the location of the remote sales office.

Import	Imports a .csv file into the Global Directory
Export	Exports a .csv file from the Global Directory

Importing an Address book

1. Click on the **Import** button. A new dialog box will appear.
2. Browse to the file location on client machine.
3. Click on check box import entries as static addresses if importing addresses that will not register with the Global Directory.
4. Click on check box import entries as static if importing addresses that will not register with the Global Directory.
5. Click on **Import** data.

NOTE

Keep Import entries as Static Addresses as deselected when importing an address directory containing endpoints that will register with the Global Directory.

This will prevent the Global Directory, you are importing to, from removing dynamic entries that register with the Global Directory that you are exporting from. If this imported directory contains video endpoints that report to another Global Directory server, these endpoint entries cannot be dynamic entries to this Global Directory.

By leaving that check box deselected, the Global Directory will remove the imported dynamic entries that do not register with Global Directory within 35 minutes. Static addresses will not be removed from the Global Directory unless a user removes it manually.

NOTE

If "Do not overwrite existing static address entries" box remains unchecked, static address entries with the same name and protocol type will be modified with the import address information. If there is no existing entry with the same name and protocol a new static address entry will be added.

Exporting the Global Directory

1. Click on **Export**. A pop up window will appear.
2. Determine the file path for the location you wish to place this file on the server.
3. Select the Address book(s) you would like to export.
4. Click on **Export Data**.

Global Directory Configuration

Configuration button

This window shows how the Global Directory password can be set and how to configure your server for ILS and LDAP support.

General	Set passwords to the Global Directory
LDAP	Configuration settings
ILS	Configuration Settings

Global Directory Configuration

Global Directory Password

The Administration Password gives the video endpoints access to the Global Directory and its administration tools. If this password is set on the Global Directory server, the password must be entered in the video endpoint's Global Address Preferences screen before a user can access the Global Directory. If the server has no password set, the password field in the Global Address Book Preferences screen must be left blank.

Figure 3.3 Global Directory > Configuration

NOTE

If the password is changed all endpoints that access the Global Directory must be configured with the new password or they will lose their connection to the server the next time the endpoint is turned off and then turned back on.

If you choose to have password protection when using the Global Directory, the password must be set in the Global Directory server.

Global Directory Configuration

Adding LDAP and ILS Support

Support for your Lightweight Directory Access Protocol (LDAP) and Internet Locator Server (ILS) server is a new feature and poses many advantages. LDAP support can be used in email programs and Web Browsers to access directory listings. ILS is a dynamic directory service which maintains a dynamic database of users online to facilitate real-time communication over IP for Microsoft NetMeeting™.

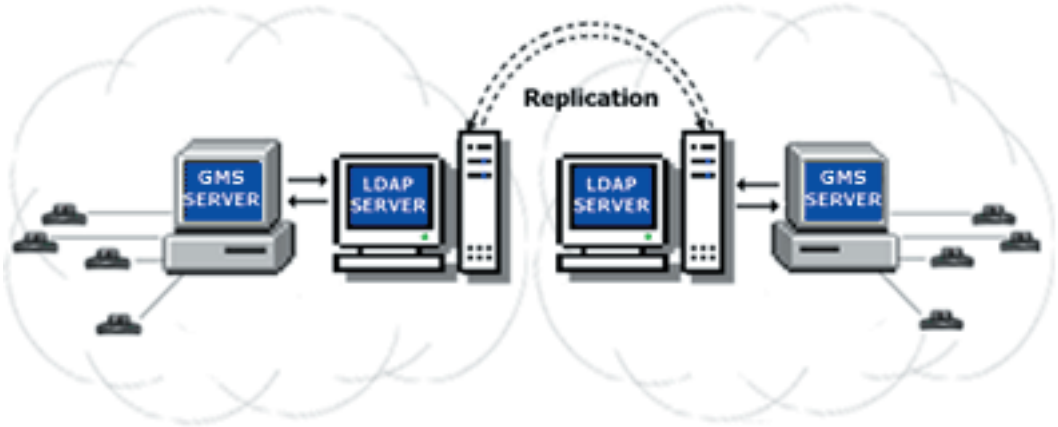
One reason to configure your LDAP and ILS Server for the Global Address book, since the Global Directory is LDAP-compliant and ILS compliant, is to replicate the Global Directory information to all networked Global Address Books. Instead of having to import address books via the "Import" feature in Global Directory, automated replication of the directory information occurs when you have LDAP or ILS support.

Global Directory Configuration

LDAP

Organizations with remote and international campuses will have their local endpoints reporting to a local Global Directory server. Since Polycom ReadiManager LX100 supports LDAP, it will replicate the directory entries to and from LDAP. The information replicated onto the LDAP server from one Global Directory can then be replicated to another Global Directory, either from a Global Management System server or a Polycom ReadiManager LX100 unit, within that organization. As a result, campus A Global Directory will have the same directory information as campus B Global Directory. The Global Directory will replicate the information into LDAP every 15 minutes. Note that entries from an LDAP or ILS server imported via Global Directory replication from LDAP will be designated with a blue booklet icon.

Figure 3.4 LDAP Representation



The Microsoft version of LDAP2.0 is supported in Polycom ReadiManager LX100.

NOTE
Only entries in the Default Address Book (i.e., "Main") will be replicated. The entries in the other address book will not be replicated.

Global Directory Configuration

Configuring the server for LDAP

1. From the Global Directory window, select the **Configuration** button. A pop up window will appear.
2. Two tabs are labeled with ILS or LDAP. Select the **LDAP** tab.
3. Enter the following information:

Field header	Description
Address	Name or IP address of server
Port	Use 0 to accept the default protocol
LOGIN	Required*
PASSWORD	Required*

NOTE

The name and password entered for LDAP configuration must be for an account that has permission to modify the schema on the LDAP server. Refer to the following page on how to modify the schema.

4. Click on **Update**.

Deleting your configuration settings

If changes have been made to LDAP server, select the configuration button. Click on the LDAP tab and then click on delete. The LDAP configuration entry will be deleted.

Global Directory Configuration

Configuring your Server to Allow Updates to the Active Directory Schema

1. Open a DOS command prompt.
2. Run command: "regsvr32 c:\winnt\system32\schmmgmt.dll". If successful a window will appear and state Dll Register Server Succeeded.
3. From the Start Menu:
   Select **Run** and type the following command line: "mmc /a" and the Microsoft Management Console window will open up.
4. From the console drop down menu: select **Add/Remove Snap in**. A new window will open up.
5. In Add/Remove Snap-in window:
6. Click on **Add** and select "Active Directory schema" from list.
7. Click on **Add** then click **Close**.
8. Close "Add/Remove Snap-in" window by clicking on **OK**.
9. From the console window:
   Select **Active Directory Schema** in the left pane within the console
10. In this window:
11. Select **Operations Master** from the action pull down menu.
12. Change Schema Master window opens up. Make sure that the "Schema may be modified on this Domain Controller" is checked.
13. Select **OK** and close window.

Global Directory Configuration

ILS

An Internet Locator Server (ILS) server is a directory that stores names, aliases, Email addresses, and IP addresses of registered users. ILS works differently in the replication of directory information but yields the same result of all networked Global Directories containing the same directory information.

Networked directories will report to one ILS server. The entries from all networked Global Directories will post their directory entries to the ILS server. Each Global Directory will then pull the cumulative new entries from the ILS server. Hence, all address books will contain the same directory entries.

Figure 3.5 ILS pictorial representation

Site Service ILS Service on Windows 2000 Server is supported by Polycom ReadiManager LX100. When configuring ReadiManager LX100 to communicate with either of these servers, keep in mind that Site Server ILS (Win2000) is defaulted to port 1002.

> **NOTE**
> The ILS replication feature will not replicate any H.320 entries. Only H.323 entries will be replicated into the Global Directory.

> **NOTE**
> ILS may stop replicating entries into the Global Directory address book. If this occurs, reboot the ILS server.

Global Directory Configuration

Configuring the server for ILS

1. From the Global Directory window, select the **Configuration** button. A pop up window will appear.
2. Two tabs are labeled with ILS or LDAP. Select the **ILS** tab.
3. Enter the following information:

Field	Description
Address	Name or IP address of server
Port	Use 0 to accept the default protocol If ILS is from Windows 2000, the its port is 1002.
LOGIN	Optional
PASSWORD	Optional

4. Click on **Update**.

Deleting your configuration settings

If changes have been made to ILS server, select the configuration button. Click on the ILS tab and then click on delete. The ILS configuration entry will be deleted.

ViewStation Configuration for the Global Directory

In order for a ViewStation to auto register with the Global Directory, the ViewStation must be configured to look up the server. This allows the ViewStation to access and register with the Global Directory.

From the ViewStation's main screen go to:

System Info > Admin Setup > LAN/H.323 >

Global Address Book > Server >

From the ViewStation web page

Highlight the system of interest in the System list and click on **Manage System**. Go to:

System Info > Admin Setup > LAN, H.323 and Global Services >

Global Address Book > Server >

Field	Description
Enter Server IP Address	Server IP address
Server Password	*******
Display Global Address	Place check mark in check box
Register this system when Powered On	Place check mark in check box NOTE If unchecked after being checked, the ViewStation will disappear from the Global Directory Server immediately.

iPower Configuration for the Global Directory

In order for an iPower to auto register with the Global Directory, the iPower must be configured to look up the server. This allows the iPower to access and register with the Global Directory.

From the iPower web page go to:

Highlight the system of interest in the System list and click on **Manage System**. Go to:

System Info > Admin Tools > Directories > Directory options > Central and Personal Directories > Set up Central Directory

Field	Description
Server DNS Name	The server on which the Central Directory resides.
Server IP address:	An alternate way for the system to find the Central Directory.
Port number:	3601 The port number that the system assigns automatically when you select the Polycom Global Directory as the Server Type. You cannot modify this number.
Server Access Account name:	The system account name on the Directory server. You can get this information from the Directory Server administrator. This information is not required for systems configured to use the Polycom Global Directory.
Account password:	Lets you enter and confirm the Directory Server password. You can get this information from the Directory Server administrator.
Automatically register this system's information with the server:	Allows the system to automatically create or update its own entry in the Directory Server at startup. This setting is always enabled for systems configured to use the Polycom Global Directory.

ViaVideo Configuration for the Global Directory

In order for a ViaVideo to auto register with the Global Directory, the ViaVideo must be configured to look up the server. This allows the ViaVideo to access and register with the Global Directory without having to be replicated through an ILS Server.

From the ViaVideo web page go to:

Highlight the system of interest in the System list and click on **Manage System**. Go to:

System Info > Global Services > Directories >

Field	Description
Server Name	The name of the server on which the Global Directory resides.
Register with this Server	Click this check box to register with this Global Directory server
Registered	This checkmark indicates that this ViaVideo in registered with the Global Directory in the Server Name

V-Series Configuration for the Global Directory

In order for a V-Series to auto register with the Global Directory, the V-Series must be configured to look up the server.

From the V-Series admin interface go to:

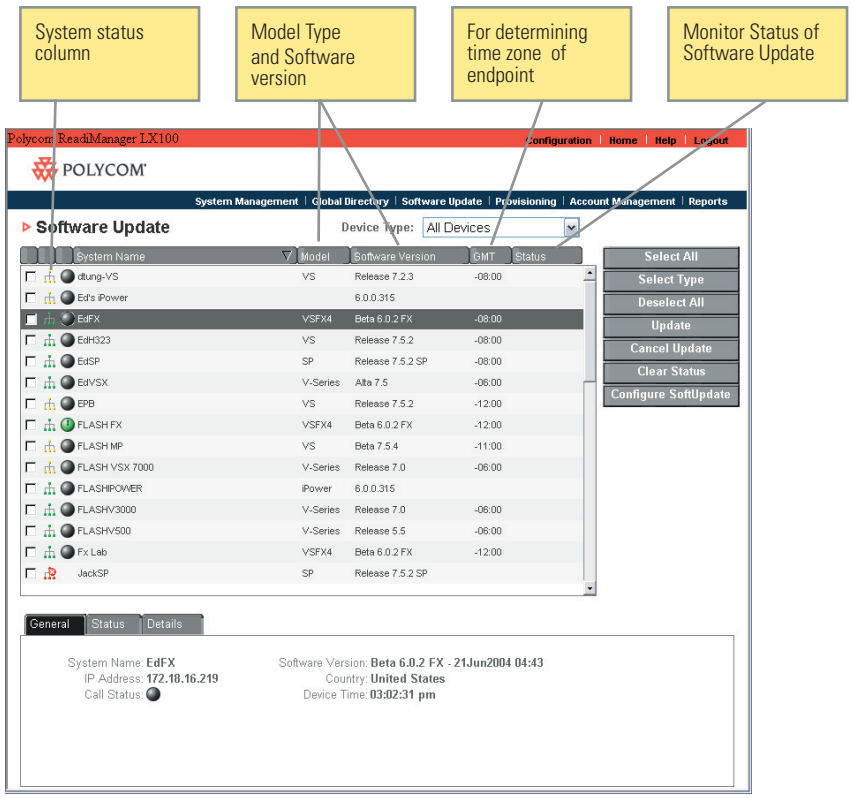
Admin Settings > Global Services > Directory Servers

Field	Description
Global Directory (GDS)	Specifies the IP address or DNS address of the Global Directory Server.
Register	Registers this system with the Global Directory Server.
Password	Lets you enter the Global Directory password, if there is one.
Display Global Addresses	Displays other registered systems in the Global Directory.
Display Name in Global Directory	Specifies whether to display the system's name in the global directories of other registered systems.
Save Global Directory to System	Copies the Global Directory to this local system.

4 Software Update

In the Software Update window, Polycom video endpoints connected to your network can be updated with the latest software release. Software Update enables you to update multiple systems simultaneously even with the different software requirements for each model.

Figure 4.1 Software Update



> **NOTE**
> The status information shown in the connectivity and endpoint status columns will not be relevant to the VTX1000.

Software Update Console

The table below defines what information is displayed with each column header.

Column header	Description
Connectivity Status	Green network icon - Indicates that Polycom ReadiManager LX100 can successfully communicate with the system. Green network icon with log - Polycom ReadiManager LX100 is logging system information. Red network icon- The server is unable to communicate with a system. Yellow network icon - Indicates that Polycom ReadiManager LX100 is able to query the system, but is unable to receive status updates.
Endpoint Status	Gray ball -The video endpoint is not in a call. Green ball - A video endpoint is in a call. Red Cross - A video endpoint user is requesting help.
System Name	System Identifier
Model	Model of video endpoint
Software Version	Software version currently loaded on endpoint
GMT	Offset from Greenwich mean time
Status	Whether software updates are updating, pending, successful, failed

Software Update Tabs

Tabs have been added to the Software Update so that the administrator can easily access detailed information for a system without having to click to the System Management Page.

General Tab

Contains pertinent information for software update, such as call status, software version and the system's local time. Descriptors for these fields can be found here.

Status

Contains details explaining why the selected device is remaining in a pending state or why software update failed for this device.

Status Details - Descriptor for current status.

Failure Reason - Describes why Soft Update failed.

Next Update Time - Details when this system will be updated.

The following only applies to a ViewStation or V-Series model:

Remove Address Book entries -Yes indicates that Address book entries will be removed after an update

Remove System files - Yes indicates the endpoint settings will be removed after an update

Passive FTP - Yes indicates the ReadiManager LX100 will perform Software Update in Passive FTP mode vs. Active FTP.

Allow endpoint to be a DHCP server - Yes indicates that the endpoint will be a DHCP server.

Details

Records all steps during the Software Update process for the selected system. If Soft Update failed during the process, then all steps until the point of failure will be logged here.

Updating Endpoint Software

How to perform a Software Update

1. Configure Software Update by setting the file path for each model's softupdate.exe file.
2. Select endpoints for Software Update.
3. Choose **Update**.
4. Monitor Status of Software Update.

When Software Update is completed, the status indicated should say successful for the updated endpoint. The software update status for the selected endpoints can be cleared by clicking on the **Clear Status** button.

To cancel Software Update, the endpoint must be in pending status.

NOTE

If an endpoint has a password set, this password must be set in the server's database.

NOTE

If the endpoint is engaged in a call, ReadiManager LX100 will wait until the call ends before performing a Software Update. ReadiManager LX100 will check a system that is in a call every 15 minutes until the call is over.

If an endpoint is offline and scheduled to be updated, ReadiManager LX100 will check every hour until the system is back online. Once the system is back online, it will be updated with the latest software.

Selecting systems for Software Update

You can choose to update by model type, each individual one, or all of them. Selecting by model type is not exclusive two models at a time can be updated.

To select all systems, click on the **Select All** button. A check mark will appear next to all systems.

To select the model of choice, click on the **Select Type** button. A dialog window will list Polycom models that support Software upgrade. Click on the check box(es) next to the model(s) you wish to update. Click on **OK**. Check marks will appear next to the endpoints corresponding to the chosen model type.

To select a particular endpoint, click on the check box next to the desired endpoint in the Software Update window.

Updating Endpoint Software

Update Function

1. Choose the option “Now” or “Later”.
2. Click on **OK**.

Now

Choosing Now will result in the immediate software update of the selected Polycom video endpoints.

Later

The Later option allows you to update devices by Server Date/Time or by Device Date/Time.

When clicking on Update Later, a dialog box will appear requesting the date and time.

- Enter the date in the following format: dd/mm/yyyy
- Using the radio button, you can then choose to update by either **Server Date/Time**, or **Device Date/Time**.

NOTE

If your endpoints are networked worldwide, you must take into consideration the activity time frame for each endpoint when Update All at Server Date/Time is selected.

Server Date/Time

Choosing Server Date/Time will update the endpoint software once the designated time takes place where the Server is housed. For instance, if the server is housed in Austin, TX and the endpoint is housed in Raleigh, NC and the designated time for Software Update is 22:00:00(GMT-5) or (10:00pm CDT), the time that endpoint will be updated is 23:00:00(GMT-4) or (11:00pm EDT).

This is for ViewStation and V Series only

Remove Address Book entries -Yes indicates that Address book entries will be removed after an update
Remove System files - Yes indicates the endpoint settings will be removed after an update

Passive FTP - Software Update will be performed in Passive FTP vs. Active FTP mode.
Allow endpoint to be a DHCP server - Yes indicates that the endpoint will be a DHCP server.

Updating Endpoint Software

Status

You can validate your Software Updates by viewing the status column in the Software Update window. The following are possible results when proceeding with Software Update.

Status Column	Description
Pending	Pending to update
Updating	Software Update in progress
Successful	Software Update completed
Failed	Could not perform Software Update

If the Status for a system is pending or failed, these are the possible reasons why a system has not yet been updated with the latest software.

Pending State

1. The device is offline.
2. Device is currently in a call.

Failure State

1. Software Update location not specified for the device and/or model.
2. Software Update file location does not exist.
3. The device is no longer managed by this server.
4. Device password needed.
5. Network error.
6. Update timed out
7. Internal error occurred. Please reboot the selected device.
8. Error unknown. Please reboot the selected device.

Updating Endpoint Software

Software Update Log

Every time Software Update is performed, Polycom ReadiManager LX100 creates a log of all the software update events that occur. This log file details the steps to completion for a given Software Update.

If Software Update failed during the process, then all steps until the point of failure will be logged here. Using this file, further analysis can be made in determining why the ViewStation did not update.

A Polycom folder will be created in either the install folder or the install drive. Software logs will appear in this folder.

\Program files\Polycom\PWX, the file path will appear like this:

drive:\Polycom\PWX\log\1_1_1_1_@_yyyy-mm-dd-ss.log

1_1_1_1_	IP address of the system
_yyyy-mm-dd	Date of occurrence
-ss	Time Software Update started

Updating Endpoint Software

Cancel Software Update

The cancel feature allows cancellation of the pending Software Updates. This can be done by selecting endpoints you wish to cancel Software Update for. Once the selection(s) is made, click on **Cancel Update**.

NOTE

To cancel Software Update, the endpoints can only be in pending status.

Software Update Configuration

Configuring Your Server for Software Update

Software Update executable files can be uploaded onto the server straight from your client machine.

Upload

Sets the file path of softupdate.exe

To Configure Software Update:

1. Click on the **Configure Software Update** button which links to the Software Update Configuration page.
2. Select the Device type from the drop down list on this page and click on **Upload**.
3. Browse to the location of the Software Update executable file for the specified device type on the client machine.
4. Provide a description so that this file can be identified on this list.
5. Click on **OK**.

Deleting a Software Update

1. Select the model and description from the list
2. Click on the **Delete** button. A dialog box will appear stating, "Are you sure?"
3. Click on **OK**. The file will be removed from the server.

5 Provisioning

Provisioning is key to centralized management of your video network. With provisioning, the administrator can simultaneously configure a group of video endpoints from a single location. Provisioning replaces the endpoint's files by uploading a new set of files that contain different settings. This feature eliminates the need for the administrator to configure the endpoint manually each time an endpoint is deployed or when a group of endpoints need to be reconfigured.

Provisioning is extremely useful when a setting needs to have the same value for a group of endpoints. For instance, in the page below:

System Info > Admin Setup > LAN / H.323 > Global Address > Server

The fields on this page are Server IP address and Server Password. The values for these fields will be the same for most endpoints belonging to a certain campus. Provisioning can easily update these values for a group of endpoints if, let's say, the server IP address changes.

Examples of when Provisioning is advantageous:

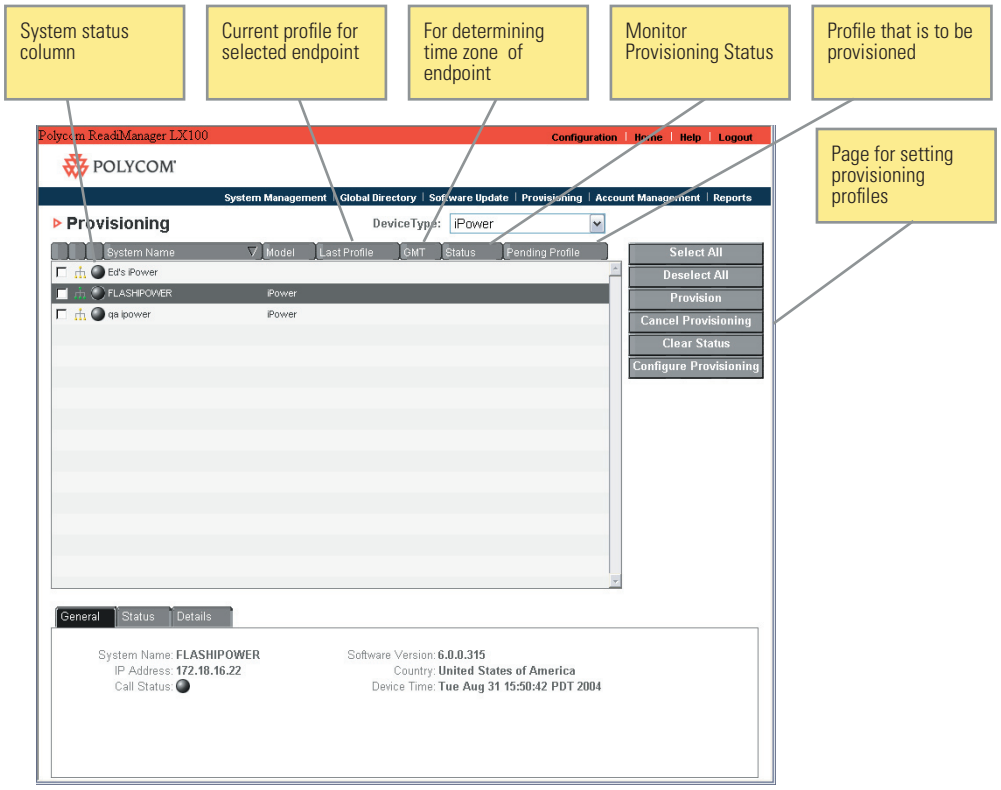
* Deployment of endpoints
* Server IP address changes
* Changes for Security settings
* Implementation of Gatekeeper within enterprise
* Implementation of Gateway within enterprise
* Changes in QoS settings

Applications for provisioning are not limited to updating large groups of endpoints; small groups (i.e., 2-4 endpoints) can also be provisioned with new settings.

Provisioning Console

Here is a screenshot of the provisioning console.

Figure 5.1 Provisioning



Provisioning functional buttons

Provision

Click on this button to schedule Provisioning for the endpoints. The scheduler works just like the Soft Update scheduler.

Cancel Provisioning

Cancels Provisioning for the selected endpoints. The endpoint must be in pending status.

Clear Status

The status for provisioning will remain on record until it has been cleared.

Configure Provisioning

Opens the Provisioning Configurations page. Provisioning profiles determine endpoint settings. Multiple profiles can be created tailored to different groups of endpoints.

Provisioning Console

Column header	Description
Connectivity Status	Green network icon - Indicates that ReadiManager LX1000 can successfully communicate with the system. Green network icon with log - ReadiManager LX1000 is logging system information. Red network icon- The server is unable to communicate with a system. Yellow network icon - Indicates that Polycom ReadiManager LX1000 is able to query the system, but is unable to receive status updates.
Endpoint Status	Gray ball -The video endpoint is not in a call. Green ball - A video endpoint is in a call. Red Cross - A video endpoint user is requesting help.
System Name	System Identifier
Model	Model of endpoint
Software Version	Software version currently loaded on endpoint
GMT	Offset from Greenwich mean time
Status	Whether software updates are updating, pending, successful, failed

Provisioning Tabs

Tabs have been added to Provisioning so that the administrator can easily access detailed information for a system without having to click to the System Management Page.

General Tab

Contains pertinent information for Provisioning, such as call status, software version and the system's local time. Descriptors for these fields can be found here.

Status

Status Details – Descriptor for current status.

Failure Reason – Describes why Provisioning failed.

Next Update Time – Details when this system will be provisioned.

Details

Records all steps during the Provisioning process for the selected system. If Provisioning failed during the process, then all steps until the point of failure will be logged here. Polycom ReadiManager LX100 also creates a text file of the details recorded.

Provisioning Scheduler

How to Schedule Provisioning

1. Select the endpoints by either choosing the **Select All** button or individually clicking on each preferred endpoint
2. Click on the Provision button, the Date/Time to provision window will pop up.
2. Choose a profile from the pull down menu. To learn how to create profiles, see page 79.
3. Choose "Now" or "Later": If "later" is chosen, designate the scheduled time to perform provisioning and "Server Date/Time" or "Device Date/Time". For more information click on either Server Date/Time (see page 66) or Device Date/Time (see page 67).
4. Monitor Status of Provisioning, on the console screen.

When Provisioning is completed, the status indicated should display successful for the provisioned endpoint. The provisioning status for the selected endpoint can be cleared by clicking on the "Clear Status" button.

NOTE

If the endpoint is engaged in a call, ReadiManager LX1000 will wait until the call ends before performing a Software Update. ReadiManager LX100 will check a system that is in a call every 15 minutes until the call is over.

If a endpoint is offline and scheduled to be updated, ReadiManager LX1000 will check every hour until the system is back online . Once the system is back online, it will be updated with the latest software.

NOTE

Provisioning may be cancelled only for a endpoint in a pending status.

NOTE

If a endpoint has a password set, this password must set in the server's database.

Provisioning Scheduler

Status

Here are the possible states that are returned when provisioning.

Status Column	Description
Pending	Pending to Provision
Updating	Provisioning in progress
Successful	Provisioning completed
Failed	Could not perform Provisioning

Here is a list of the possible reasons why a system is not yet provisioned or failed to provisioned.

Pending State

1. The device is offline.
2. Device is in a call.

Failure State

1. Provisioning profile does not exist
2. Provisioning profile does not contain any provisioning information.
3. The device is no longer managed by this server.
4. Device password needed.
5. The device is busy.
6. Network error.
7. Incomplete transfer of provisioning information.
8. Provisioning timed out
9. Internal error occurred. Please reboot the selected device.
10. Error unknown. Please reboot the selected device.

Provisioning Scheduler

Provisioning Log file

If Provisioning shows that the system has failed to receive the new settings, a file will be sent to one of the folders below. This log file will detail the steps to completion for a Software Update if the ViewStation failed to provisioned.

Program files\Polycom\PWX, the file path will appear like this:

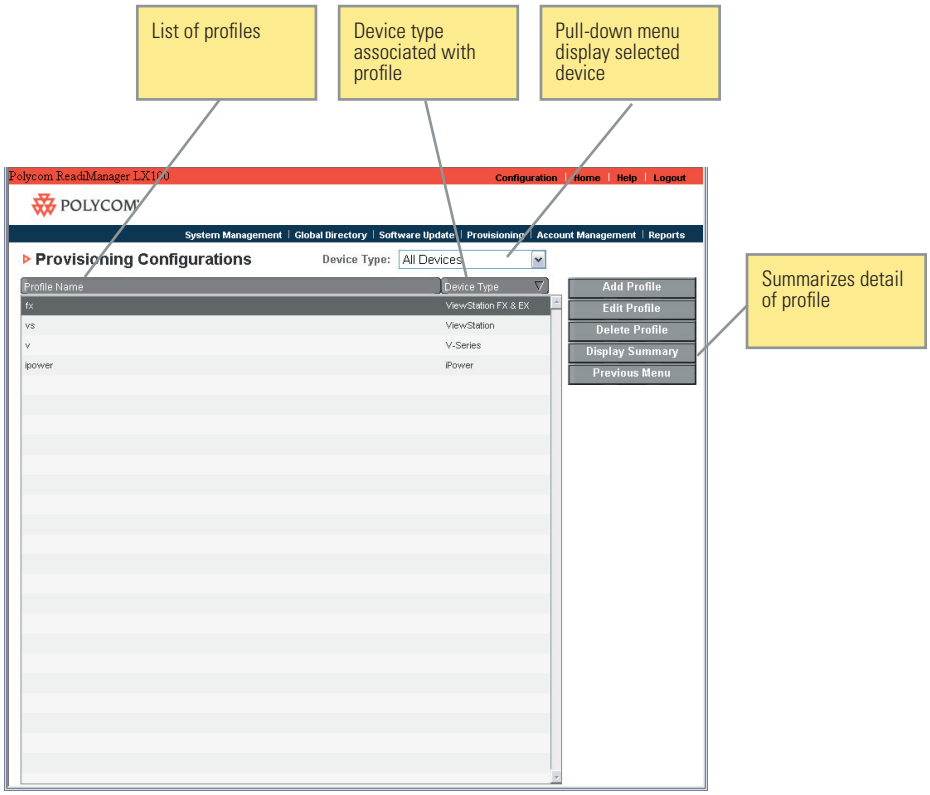
drive:\Polycom\PWX\log\1_1_1_1_@_yyyy-mm-dd-ss.log

1_1_1_1	IP address of the system
_yyyy-mm-dd	Date of occurrence
-ss	Time Provisioning executed

Provisioning Configurations

This screen contains a list of profiles that were created and its associated device type. A profile defines pages with fields that can be configured in the endpoint. These are a subset of the fields that appear when the admin screen is called up from the endpoint interface or web browser.

Figure 5.2 Provisioning > Provisioning Configurations



Profiles makes it easier to modify a group of endpoints. Profiles can be set up for a specific group of endpoints. How these groups are defined is up to the administrator.

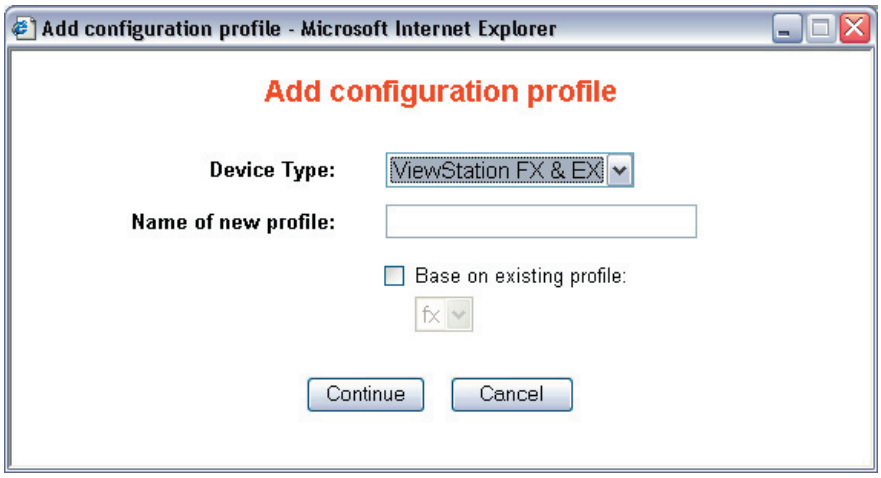
Here are some examples of groups:

- A group can consist of endpoints that are proximally near each other and report to the same Global Directory server.
- A group of endpoints that are the same model
- Endpoints that have the same H.323 services such as registration to the same Gatekeeper.

Provisioning Configurations

Adding a profile

Figure 5.3 Provisioning > Provisioning Configurations > Add configuration profile



1. Click on **Add Profile**, the Add Configuration Profile window will pop up.
2. Choose the Device type from the drop down menu.
3. Enter a profile Name to identify the profile.
   If based on an existing profile, check this box and choose the base profile from the drop down menu.

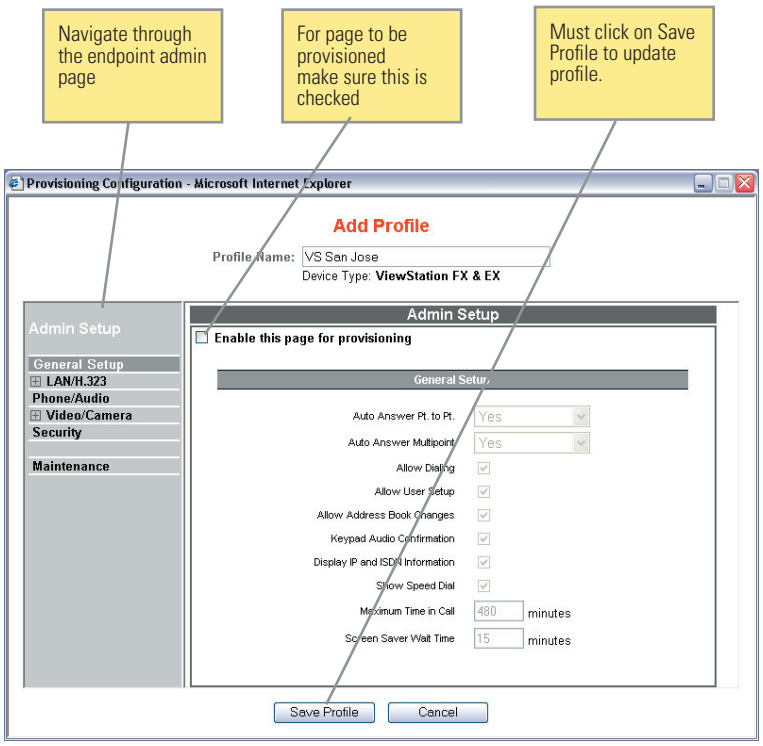
> NOTE
> Profiles can be based on other profiles. A base profile is a template containing settings that are global for endpoints in an enterprise. Base profiles eliminate the need to configure the same settings every single time.

4. Click on **Continue**, the Add Profile window will open.

Provisioning Configurations

Add Profile Window

Figure 5.4 Provisioning > Provisioning Configurations > Add configuration profile



The navigational menu in the main frame corresponds to the Admin Setup page on the endpoint interface. Not all fields are provisionable since some fields are unique to each endpoint such as the ISDN phone number. Tables containing the fields, the associated values and meaning is listed on the following page.

1. Navigate to the sections on the tree menu that are to be provisioned.
2. Click on "Enable this page for provisioning" check box.

> **NOTE**
> The check box "Enable this page for provisioning" must be checked in order for the settings on that page to be provisioned. If this checkbox is not checked, ReadiManager LX100 will skip uploading the files associated with that page during provisioning.

Add Profile Window cont.

3. Enter the necessary information required by the fields. When "Enable this for provisioning" is checked, all items on that page will overwrite information in the current identical fields in the endpoint's settings. For example, as in the screenshot above, "Auto Answer" is configured to Yes and "Allow User Setup" to No. If the "Allow User Setup" is currently set to Yes on the ViewStation, after provisioning "Allow User Setup" will change from Yes to No and "Auto Answer" will have a Yes value.

> **NOTE**
> If a field is left blank on any of the pages which have "Enable this for provisioning" then the equivalent field on the endpoint will be erased when provisioned.

4. Navigate to the next section. Repeat step 3.

> **NOTE**
> The Add Profile feature saves the settings when navigating from one section to the next. However, these settings are only temporarily saved. In order for the settings to be permanently saved, the Save Profile button on the bottom of the window must be clicked on.

5. Once the profile configuration is complete, click on the Save Profile button on the bottom of the window. This saves all pages within the Admin Setup directory, not just the page shown in the example screenshot.

> **NOTE**
> The endpoint cannot be configured beyond the model capabilities. Even though it seems that you are able to provision a settings which your endpoint model may not inherently have, these configuration pages are not model specific.

Editing a Profile

Editing a profile works in a similar fashion to adding a profile.

1. Select the profile you wish to edit from the list.
2. Click on **Edit**, the Configuration Profile window will pop up.
3. Navigate to the sections on the tree menu that need to be modified.
4. Once the profile is complete, click on the **Save Profile** button on the bottom of the window

Provisioning Configurations

Endpoint Administration Setup

The following menus mirrors the primary navigation level in the Add Profile window for a V-Series, ViewStation and iPower. Some of the selection items found in the video endpoint interface and Web Pages are not present. These selection items are not provisionable through Polycom ReadiManager LX1000. For a more in depth view that explains what each field is in the ViewStation Admin Setup Menu or iPower Admin Tools Menu, please refer to Appendix.

ViewStation Provisioning Menu

General - Sets basic administrative and ViewStation information
LAN/H.323 - The H.323 screen is used to configure IP networking for the ViewStation
Phone/Audio - Configures analog telephone information connected to your ViewStation
Video/Camera - Configures ViewStation video and camera properties
Security - Set the ViewStation password

iPower Provisioning Menu

General - Sets basic administrative and iPower information
ISDN- Configure settings for ISDN
LAN - The H.323 screen is used to configure IP networking for the iPower
Video - Configures iPower video and camera properties
Directory - Sets iPower Directory settings
Utilities - Sets various controls for iPower
Internal MCU - Configures settings for embedded multipoint functionality

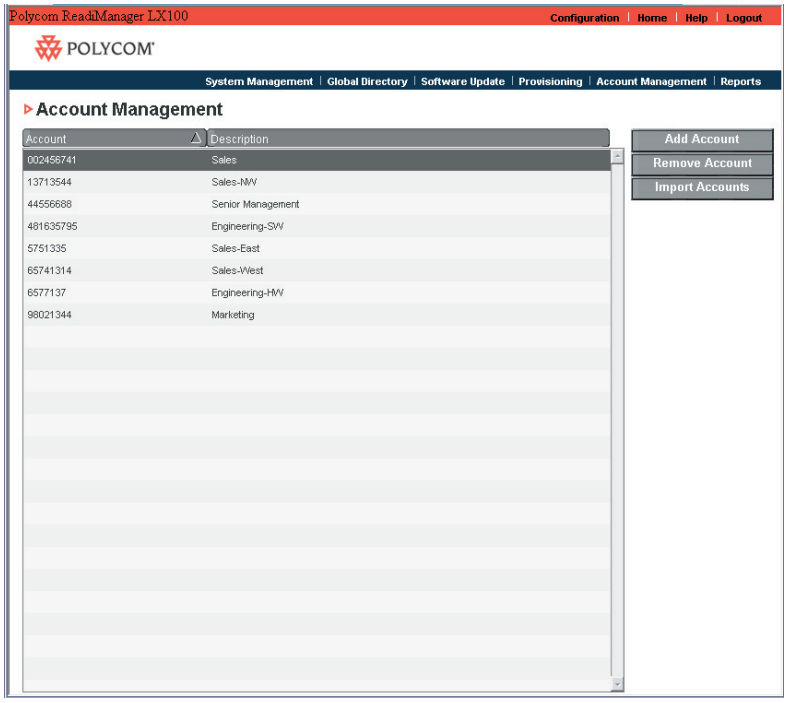
V-Series Provisioning Menu

General Settings - Configure the general behavior of the system to accommodate your environment.
Video Network - Configures settings that enables the system to operate within the video network.
Global Services - Configures settings that enables the system to be managed by Polycom ReadiManager LX1000 and use the Global Directory
Monitors - Allows for customization of displays to suit your room and equipment configuration.
Cameras - The Cameras screens let you specify camera settings.
Audio Settings - Sets audio settings of the video endpoints
LAN Properties - Configure the system to work with the LAN.

6 Account Management

This feature is used to set up accounts to track endpoint usage time. Accounts can be created for a particular group or department. If the account user accesses an endpoint shared by many departments, the usage time can be tracked with the results shown in Call Detail Record. Account Management is useful for the accounting department to reconcile usage time by account number and to bill the department for ISDN minutes accrued.

Figure 6.1 Account Management



Managing Endpoint Accounts

Adding an Account

1. Click on **Add Account**; a pop up window will appear.
2. Enter the appropriate account name/number and description.
3. Click on **OK**. The screen will reload and the account information entered will appear on the Account Management screen.

Removing an Account

1. Select on the desired account for removal.
2. Click on **Remove Account**, a dialog box will appear.
3. Click on **OK** to confirm removal of account. The screen will refresh with that account removed.

NOTE

These are the valid characters for use in Account Validation.
0-9, a-Z, period, semicolon, colon, comma, #, *, -, _ , \, /, @, +, (,), &, ‘, =

NOTE

Endpoints making calls with an account number will be validated by the first ReadiManager LX100 server in the Manager URL list, under the Management Tab in the System Management page. If there are more than two ReadiManager LX100 servers managing an endpoint, the second server will not validate the account.

Importing Accounts

Accounts can now be imported in batch into Polycom ReadiManager LX1000. Users can now enter as many accounts at one time instead of entering accounts one by one. To import accounts, the file must be in csv form with the account code and description delimited by a comma. The maximum number of accounts that can be imported into Polycom ReadiManager LX1000 is 10000.

1. Click on Import Account and browse to the location of the file on the client machine.
2. Click on Import Data.

Example of csv data

```
12345,Accounting
45612,Marketing
6874231,John Smith
781357,Marcy Kestral
98645,Sales
564897,Helen Critendon
```

Account Configuration

In order for Polycom ReadiManager LX100 to record account usage in Call Detail Record, Account Validation must be configured on the endpoint:

System Info > Admin Setup > LAN/H.323 >

Global Management > ReadiManager LX100 Setup >

Field	Description
Require Account Number to Dial	Must be checked
Validate Account	Optional

Require Account Number to Dial

When this feature is checked, the endpoint user must first enter an account number before proceeding with a conference call. Any account number can be entered at this point even though that account number may not exist in the Account Management list. If the account needs to be validated, then "Validate Account" must be checked.

Validate Account

This feature cross-references with Polycom ReadiManager LX1000 whether the account entered is a valid account. If the account does not exist in the database, the endpoint user who attempts to make a video call will not be able to proceed with the call.

7 Reports

Polycom ReadiManager LX100 will generate reports of video endpoint usage. The implementation of the report feature is for administrator access to the historical activity of network events.

These are the types of reports that can be generated in Polycom ReadiManager LX1000:

Call Detail Record	Detailed information regarding video endpoint calls are displayed in this report Export Call Detail Record as a comma delimited file for analysis.
Network Status Report	This report describes statistics of all endpoints managed by ReadiManager LX100
Device Trace Report	View log files of endpoints that have or have had device tracing enabled.

Call Detail Record

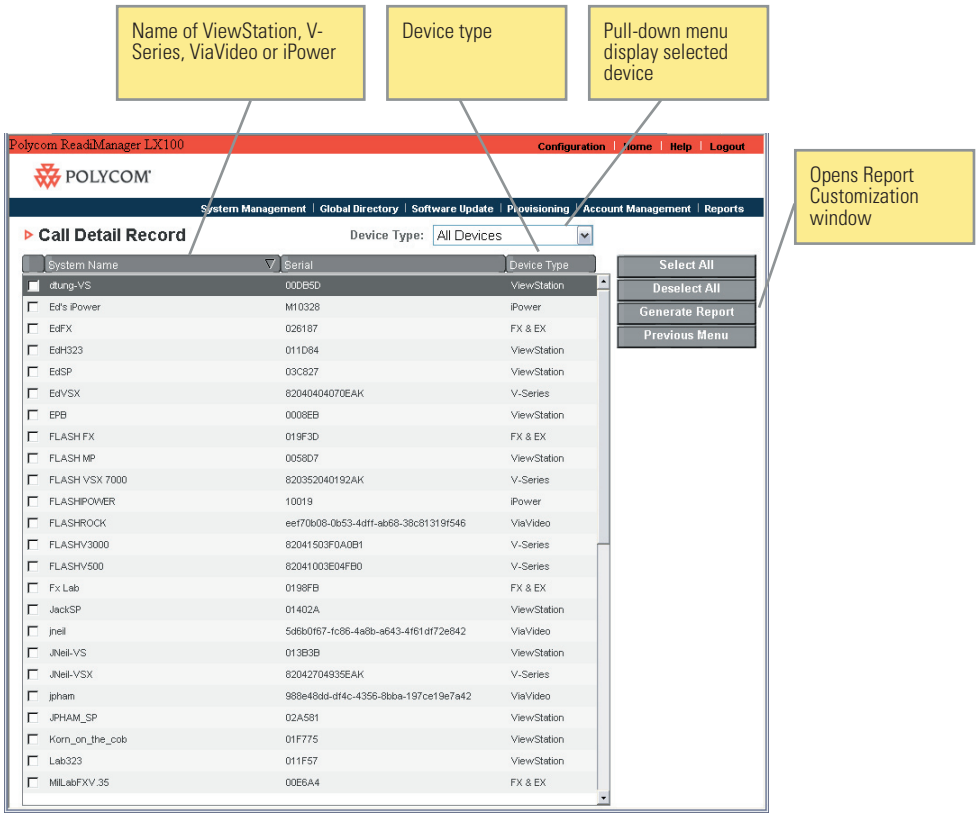
CalII Detail Record Introduction

Call usage reports can be generated for each Polycom video endpoint to that server. These reports can be used for billing purposes or for troubleshooting purposes.

The new features that have been added to Call Detail Record are:

- Customizable Reporting feature
- Selectable Date features
  - Option to include ISDN and/or IP calls
  - Option to include Outbound and/or Inbound
  - Option to include successful and/or failed calls
- Serial number of endpoint is now provided

Figure 7.1 Call Detail Record



Call Detail Record

Call Detail Record for Billing

The Call Detail Record Feature can be used to bill back departments for their video usage or, if you are a service provider, customers. Billing back through Call Detail Record is most effective when used in conjunction with Account Management. The account numbers, which are set up in Account Management, allows for reconciling the cost of video usage with an identifiable user.

The report has been streamlined for accounting with the addition of many optional features in generating reports. Also, these options make differentiating between ISDN and IP calls easy. Other options, such as, only including outbound calls when generating a report further adds to the ease of billing.

The reports can be exported as a .csv file, a comma delimited file, which can be imported to any database program that accepts that format.

Call Detail Record for Troubleshooting

Call Detail Record provides troubleshooting information such as how many channels connected in an ISDN call and how many failed calls were made (calls that did not connect) when these options are selected in the "Customize Report" window. These details can provide insight to errors that occur during the video calls. In addition, usage data can be extracted from Call Detail Record to determine network traffic.

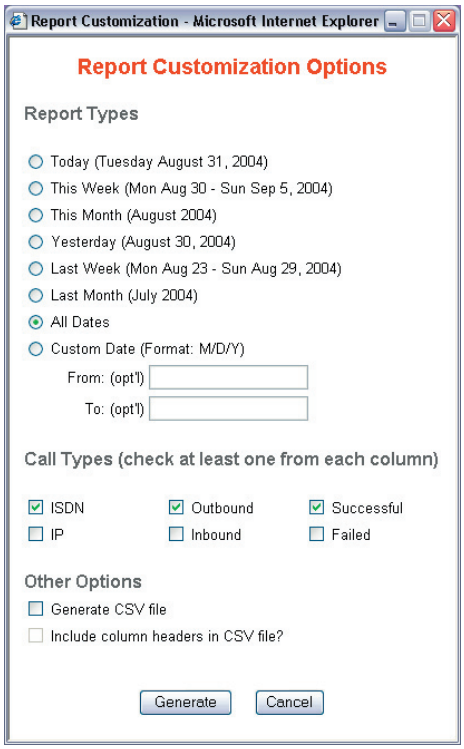
Call Detail Record

Generating a Call Detail Record

Instructions on creating a report. Details are given below.

1. From the Reports menu, click on “Call Detail Record”.
2. Select Systems for reports
3. Click on **Generate Report**.
4. Choose options for report customization. This is an optional step.
5. Once the options have been selected, click on **Generate**.

Figure 7.2 Call Detail Record > Report Customization Options



Selecting Systems

The Call Detail Record screen will list all systems currently being managed by Polycom ReadiManager LX1000 and all previously managed system that have a call history. The pull down menu enables you to view the list by ViewStation units,V-Series units, ViaVideo units or all units.

All systems selected is the default for report generation. You can select systems by clicking on the check boxes next to the system of interest. You can also select systems by clicking on the Select All button. The Select All button will select all systems appearing on the list, which is dependent on the selected option for the “Device Type” pull down menu.

Call Detail Record

Generating a Call Detail Record

Generate Report

If no options are chosen and the Generate Button is clicked on, then the report will be based on the following default settings.

- ISDN calls
- Outbound calls
- Successful calls - calls that only connected
- Date range is defaulted to all calls in the database for selected endpoints.

Customizing Reports

You will be able to select different options for generating a report customized to your needs.

Call types:

- Predefined selectable date ranges or custom date settings under Report type
- Option to include only ISDN and/or IP calls
- Options to include outbound and/or inbound calls
- Option to include successful and/or failed calls
- Automatic CSV file format report generation
- Option to include headers in the CSV file

Other options:

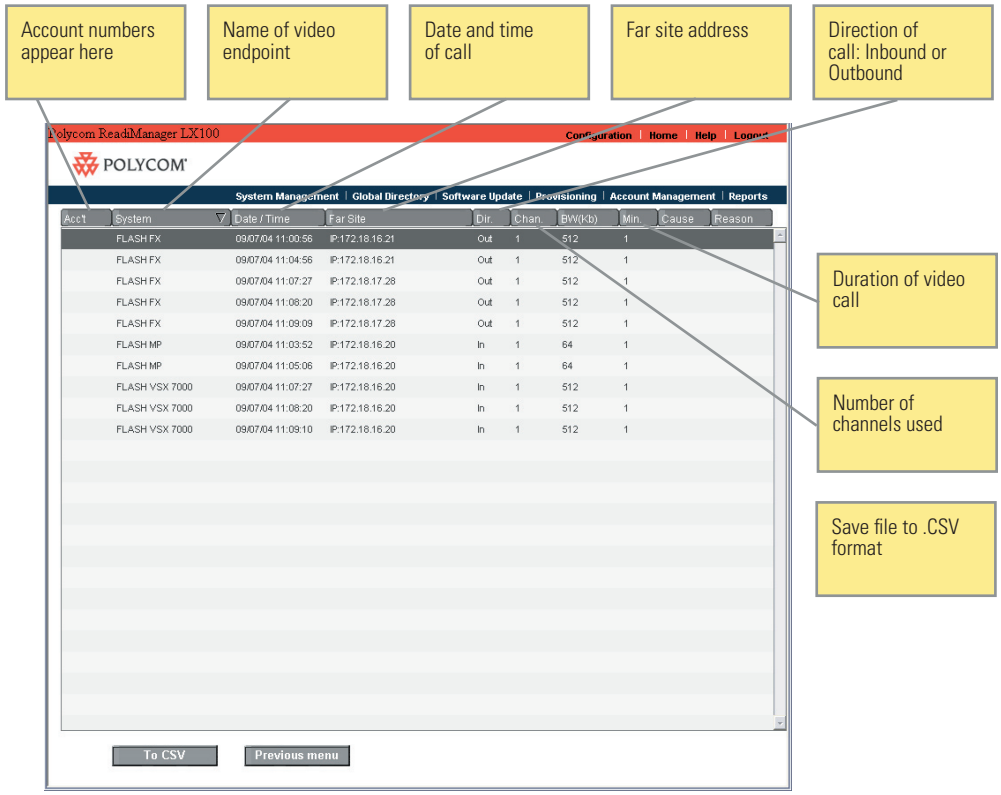
Generate CSV file - Generates a CSV file and an html report concurrently.

Include column headers with CSV file - Provides column headers to note what column is what in the CSV file.

Call Detail Record

Interpreting the Report

Figure 7.3 Call Detail Record > Report


Account numbers appear here
Name of video endpoint
Date and time of call
Far site address
Direction of call: Inbound or Outbound
Duration of video call
Number of channels used
Save file to .CSV format
Polycom ReadiManager LX100
POLYCOM
System Management | Global Directory | Software Update | Provisioning | Account Management | Reports
Acc't | System | Date / Time | Far Site | Dir. | Chan. | BW(Kb) | Min. | Cause | Reason
FLASH FX 09/07/04 11:00:56 IP:172.18.16.21 Out 1 512 1
FLASH FX 09/07/04 11:04:56 IP:172.18.16.21 Out 1 512 1
FLASH FX 09/07/04 11:07:27 IP:172.18.17.28 Out 1 512 1
FLASH FX 09/07/04 11:08:20 IP:172.18.17.28 Out 1 512 1
FLASH FX 09/07/04 11:09:09 IP:172.18.17.28 Out 1 512 1
FLASH MP 09/07/04 11:03:52 IP:172.18.16.20 In 1 64 1
FLASH MP 09/07/04 11:05:06 IP:172.18.16.20 In 1 64 1
FLASH VSX 7000 09/07/04 11:07:27 IP:172.18.16.20 In 1 512 1
FLASH VSX 7000 09/07/04 11:08:20 IP:172.18.16.20 In 1 512 1
FLASH VSX 7000 09/07/04 11:09:10 IP:172.18.16.20 In 1 512 1
To CSV
Previous menu

The order given here is the same order for both the html report and the .csv report. The table below describes the meaning of each for report interpretation.

Column header	Description
Acc't	Account. Account number designated in Account Management
System	Name of System
Date/Time	Date and time when call was made
Far Site	Type of call. Designates whether the call is IP-based or an ISDN call and displays the IP address or Phone Number of other endpoint
Direction	Whether the call is inbound or outbound
Chan.	Channels. The number channels connected during a call specific to ISDN. For ISDN calls, the number of channels connected will be shown. In general, every 2 channels connected equals 1 ISDN line. However, the number of lines connected is dependent on how many channels were connected, i.e. (2 channels = 1 ISDN line, 3 channels = 2 ISDN lines) If an odd number of channels connect, the number of ISDN lines connected is equal to the next even number divided by 2.

Call Detail Record

Interpreting the Report cont

Column header	Description
Chan. cont.	NOTE iPower systems show only 0 or 1 for the number of channels, regardless of the actual number of ISDN channels used in an H.320 calls Providers usually charge by how many lines connected, so in general, every 2 channels connected equals 1 ISDN line. If the endpoint has ISDN bonding, then the number of channels shown connected is what is shown. However, the number of lines connected is dependent on how many channels were connected, i.e. (2 channels = 1 ISDN line, 3 channels = 2 ISDN lines) If an odd number of channels connect, the number of ISDN lines connected is equal to the next even number divided by 2, i.e., (5 channels= 6/2 = 3 ISDN lines). When IP based calls are made, only 1 channel will be shown in this column.
BW	Bit rate which call is made at. Not all video endpoints provide call bit rate.
Min.	Minutes. Duration of the cal
Cause	ISDN Cause Code. Cause Code. The V-Series and Polycom endpoints will report ISDN Cause Codes, shown in this column. NOTE This field is only available if CDR synchronization is enabled.
Disconnect	Disconnect Reason These are the disconnect reasons for the following error codes, applicable to the V-Series, ViewStation models and FX and EX models. The reason text may be long and may be truncated in the UI. The full text length will be visible when the report is exported into CSV. NOTE This field is only available if CDR synchronization is enabled.

If failed calls were selected for the query, these calls will show up with 0 minutes for duration and 0 channels connected.

Call Detail Record

Exporting Call Detail Record

Call Detail Record can be saved as a comma-delimited file and imported to a spread sheet program for further analysis. To save Call Detail Record:

To save Call Detail Record

1. Click on **Generate CSV file** in the Generate Report window or click on To CSV at the bottom of the report page. A File Download dialogue box will appear.

2. Choose your options stated in the dialogue box.

Double clicking on the .csv file or choosing "Open this file from its current location" may open the report on your computer's default spreadsheet program.

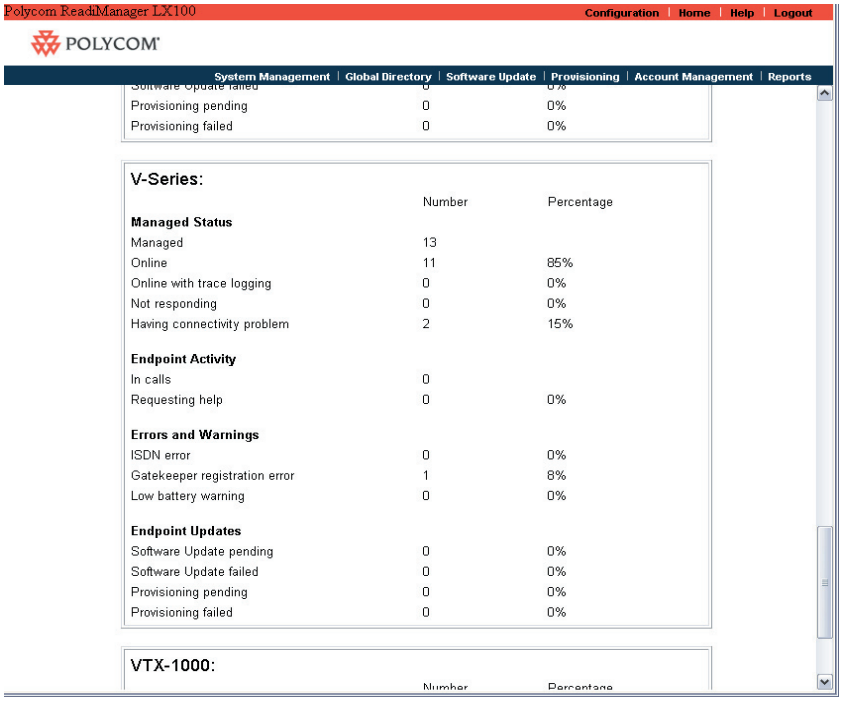
Network Status Report

Video Network Status Report

The Video Network Status Report summarizes details such as how many systems are online, how many systems are being managed. At the top, the report provides information of the overall management status for the video network. Also, the information is broken down to summarize the details for each device type. The section of the report that summarizes video endpoint network status is very comprehensive and includes details such as Provisioning and Soft Update status.

The report is dynamically written. Meaning, that if a particular device type is not managed by ReadiManager LX100 (i.e., WebCommander), then, the only information reported for this device type is the number of managed systems = 0. If a WebCommander is finally added to the ReadiManager LX100 database, then the report will also provide status information on errors.

Figure 7.4 Network Status Report



Network Status Report

Video Network Status Report

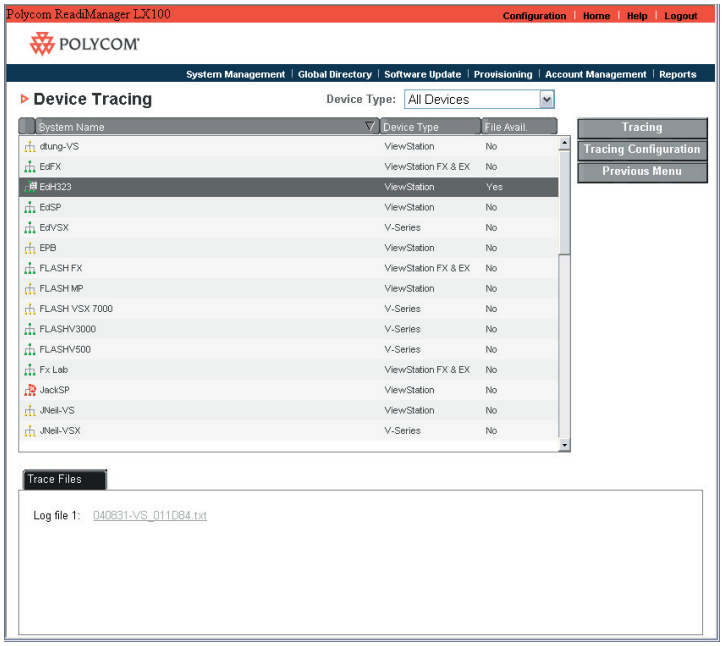
The table below describes which report features support each device type:

Feature	ViewStation, FX/EX and V-Series	ViaVideo	iPower	Path Navigator	MGC	Web Commander	Other Device
Managed	X	X	X	X	X	X	X
Online	X	X	X	X	X	X	X
Requesting Help	X	X	X	No	No	No	No
Having errors	X	No	X	No	X	X	X
Having warnings	X	No	X	No	X	X	No
In Call	X	X	X	No	No	No	No
Software Update pending	X	No	No	No	No	No	No
Software Update failed	X	No	No	No	No	No	No
Provisioning pending	X	No	No	No	No	No	No
Provisioning failed	X	No	No	No	No	No	No

Device Tracing

Device tracing provides diagnostic capabilities for administrators. Endpoint activity such as the handling of the remote control or gatekeeper communications is logged when device tracing is enabled. If issues are occurring with an endpoint, enabling device tracing can help with diagnosing the situation.

Figure 7.5 Device Tracing



Currently, the device types supported in Device Tracing are the ViewStation and V-Series models. For endpoints that have device tracing enabled, the device trace log file is generated once everyday. These log files will be maintained on the server for the number of days designated under the "Modify Device Tracing" section found within the Configuration > Server Preferences > Device Specific Configuration page.

Enabling Device Tracing

Device Tracing can be enabled in one of two ways. First, when editing a Device tracing supported device, an option to enable device tracing is provided within that window. The second way to enable device tracing is within the Reports > Device Tracing page. All managed endpoints that support device tracing will appear here. When the **Tracing** button is clicked on for a selected item, "Device Tracing" can be enabled by choosing that option in the drop down menu. Endpoints that have device tracing enabled will have the green network icon with logging appear next to it.

Once Device Tracing has been enabled, trace log files will appear in the "Tracing" tab. Depending on endpoint activity, these files can be very large in size.

NOTE

If Device Tracing is enabled for a device, other users will not be able to Telnet into this device.

8 System Configuration

System Configuration Overview

Changing the server configurations can be found by clicking on the wrench icon in the top right hand corner of your browser window. On this screen, you will find a gateway to different pages where the following can be set:

Server Preferences	Adjust preferences for this server
Remote Alert Notification	Adjust Email notification settings

Server Preferences

On this screen you will find the links for Software Update Configurations, ViewStation Status URL, Database compaction and Email server setting.

Software Update Configuration

Please refer to page 71 for more information on Software Update Configuration.

Provisioning Configuration

Please refer to page 78 for more information on Provisioning Configuration.

Email Configuration

Enter the address of the email server here for Remote Alert Notification to send emails. The email server must be SMTP compliant in order for this feature to work. Also, you can set the "From" field for emails sent by Polycom ReadiManager LX100 in the "Originating email address" field.

Device Specific Configuration

On this screen, set the configuration parameters for the Polling interval for each device, Default Password and Database Maintenance. To learn more, refer to the following page.

Device Tracing Configuration

This new window will set the configuration parameters for the number of devices that can have data logged at one time.

CDR Maintenance Configuration

The configuration parameters for CDR database maintenance are set here.

CDR Synchronization Configuration

The synchronization settings are configured here.

Server Preferences

Device Specific Configuration

Select the desired device type from the pull-down menu.

For all Devices

Polling

The devices that are managed are polled at an interval based on the device type shown in the table below.

Device Type	Default Cycle
ViewStation and FX/EX and V-Series	300 sec
ViaVideo	600 sec
iPower	300 sec
PathNavigator	300 sec
MGC	120 sec
WebCommander	300 sec
Other	300 sec

If your settings are left at the default, the system will poll a specific ViewStation, for example, every 5 minutes. Note that, if a ViewStation is turned off within that 5 minute cycle, it will not be designated online until it is polled again (up to 5 minutes later). If the ViaVideo application is closed but it's PC remains connected to the network, it will immediately show up as not responding.

You can change the default setting to have more frequent polling. However if a video device is in a call, the video quality during the call may be compromised.

To change the polling frequency

1. Select the device type from the pull-down menu.
2. Change the value to the desired value representing the time between polls. Remember this is in seconds.
3. Click on **Update Setting**.

Server Preferences

Device Specific Configuration

For Polycom Video Endpoints

Default Password

If each video endpoint in your organization has the same administrative password, enter the default password information. This will enable you to manage systems that have an existing administrative password. This does NOT reset the administrative password on the video endpoint, but it lets Polycom ReadiManager LX100 know what the device password is.

To set the default password, click on the "Modify default password" check box and enter the password in the Password field and the Verify field in the Default Password section.

Otherwise, leave these fields blank if the Polycom group video endpoints in your organization require individual passwords or have no passwords.

For ViewStation and V Series

Hide Admin Password

When connecting to a ViewStation via the Manage System button, the unit's admin password is exposed in the URL line at the bottom left hand corner of the browser window. Check this option to hide the password and require the user to enter the admin password (in a login dialog box) for each Manage System request.

Modify Tracing Setting

The duration for when a "Device Trace" log file is generated for a specific endpoint is specified under "Days to keep tracing logs". The default is 7 days, however, the default can be specified at a higher number. The longer the file is kept, the more files will be maintained on the server. Check this option to specify the number of days to keep the tracing logs on the server.

Server Preferences

Device Tracing Configuration

This new window will set the configuration parameters for the number of devices that can have data logged at one time. The recommended maximum number of devices to be traced at one time is 60. Any number set higher than 60 risks increased network traffic.

To enable device tracing for the endpoint, go to the Device Tracing page under Reports or on the System Management page, edit an endpoint.

Server Preferences

CDR Maintenance Configuration

Report configuration enables the user to set the variables for storing CDR data.

Archive data older than - How often data is archived and written to disk. At this point, the data that is archived is removed from the database and can only be viewed by using the archived files on disk.

Delete archives older than - The number of days archived data remains on disk before deletion. After these archives are deleted, the data is no longer under the control of ReadiManager LX100.

Local time for archive maintenance - The time of day when archive maintenance occurs. The time should be a period of the day when there is not expected to be much traffic through ReadiManager LX100.

The CDR data is stored to disk and can be found in the directory shown below on the server where ReadiManager LX100 is installed. Note that the archived files are in .csv format.

drive:\program files\polycom\pwx\CDR\<device type>

CDR Synchronization Configuration

For ViewStations and V-Series that are not connected to Polycom ReadiManager LX100, CDR data is still being collected by these endpoints. CDR Synchronization allows for the synching up of call data between the endpoint and Polycom ReadiManager LX100. This feature prevents the loss of data when an endpoint is not connected to Polycom ReadiManager LX100 because the ethernet cable has been disconnected from the endpoint but the endpoint is still in an ISDN call. When the ethernet cable is reconnected with the endpoint, thus resulting in the reestablishing of the Polycom ReadiManager LX100 - endpoint connection, Polycom ReadiManager LX100 will retrieve the call data recorded by the endpoint when it was disconnected from the LAN during the synchronization period specified in this page.

Enable CDR synchronization - Enables this feaure.

Synchronize every - The frequency at which Polycom ReadiManager LX100 is synchronizing call record data, the default is 0 days. The maximum interval is every 21 days.

Local time for synchronization - The time of day that the server will be synchronizing call data.

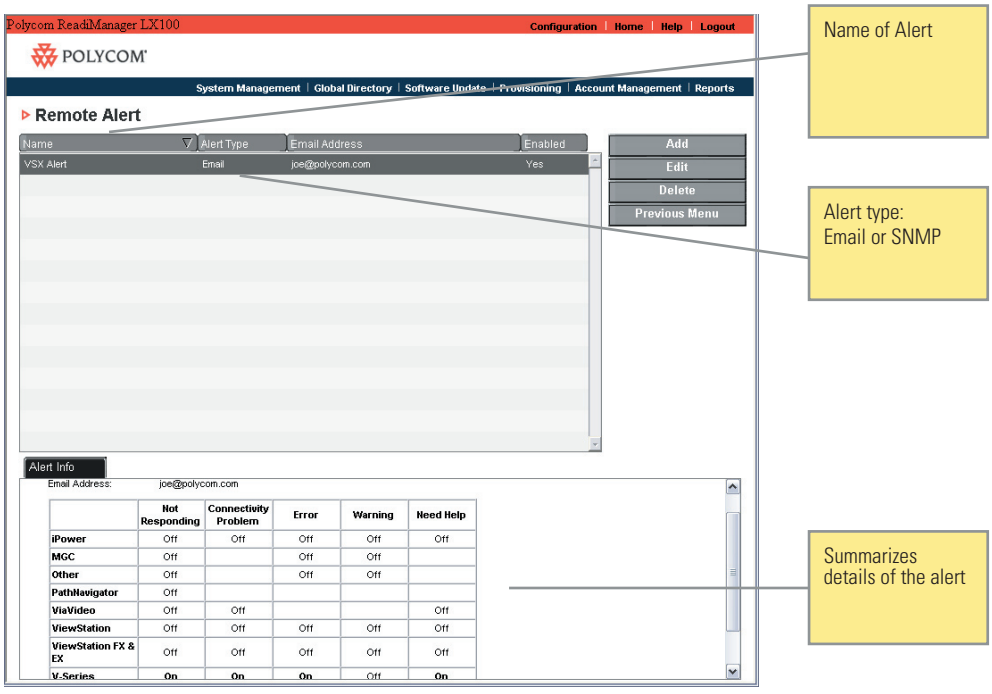
Remote Alert Notification

A Remote Alert Notification system has been implemented for 24/7 troubleshooting. Due to the high mobility of a system administrator's job, the remote alert notification system can inform the administrator of network errors for endpoints. Two types of remote alert notifications can be created: Email and SNMP. SNMP is now accessible as a remote alert.

Email Notification sends alerts to the administrator's email informing of endpoints requesting help, systems reporting connectivity problems, errors, warnings or systems not responding. The email can be forwarded to the administrator's pager for instant notification.

Simple Network Management Protocol (SNMP) is a network monitoring and control protocol to inform the administrator the current status of the network. An SNMP Agent, a reporter of activity process, will set traps when ViewStation networking mishaps occur. The SNMP agent will return information contained in a MIB (Management Information Base).

Figure 8.3 Configuration > Remote Alert Notification



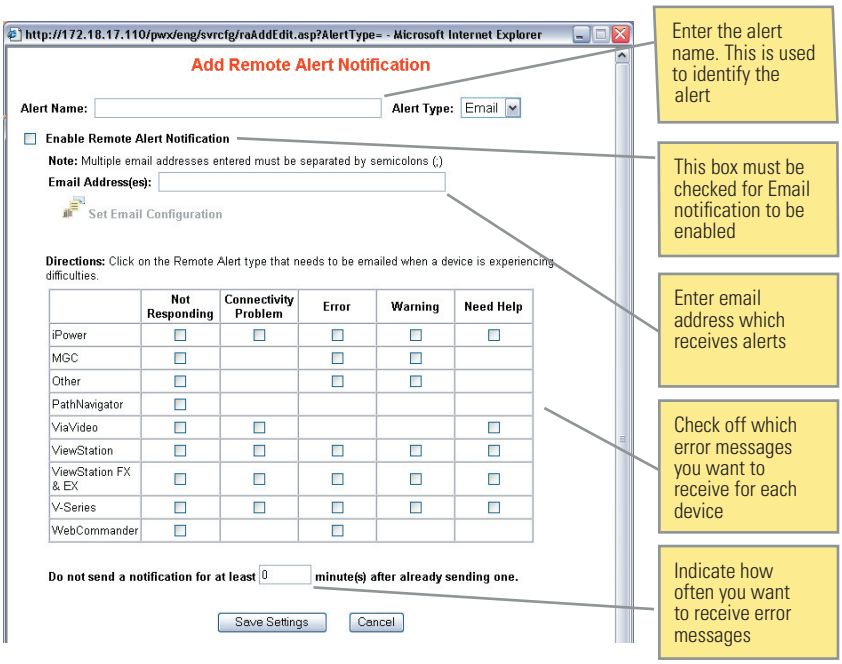
Multiple remote alerts can now be created. A remote alert can be tailored to a system administrator's job function. For example, Joe and Jane are part of the IT administration team. Both cover video support, however, Jane focuses on desktop systems and Joe focuses on group systems and infrastructure. Jane can customize the remote alerts to receive alerts specific to her core job function.

Remote Alert Notification

Email Notification

Email Notification has been enhanced to be more customizable in alert configuration. This enables the administrator to receive a more tailed remote alert. The category types now match the redesigned endpoint columns.

Figure 8.4 Configuration > Remote Alert Notification > Add Email Alert


http://172.18.17.110/pwx/eng/svrcfg/raAddEdit.asp?AlertType= - Microsoft Internet Explorer
Add Remote Alert Notification
Alert Name:
Alert Type: Email
Enable Remote Alert Notification
Note: Multiple email addresses entered must be separated by semicolons (;)
Email Address(es):
Set Email Configuration
Directions: Click on the Remote Alert type that needs to be emailed when a device is experiencing difficulties.
Not Responding
Connectivity Problem
Error
Warning
Need Help
iPower
MGC
Other
PathNavigator
ViaVideo
ViewStation
ViewStation FX & EX
V-Series
WebCommander
Do not send a notification for at least 0 minute(s) after already sending one.
Save Settings
Cancel
Enter the alert name. This is used to identify the alert
This box must be checked for Email notification to be enabled
Enter email address which receives alerts
Check off which error messages you want to receive for each device
Indicate how often you want to receive error messages

The table above shows what type of messages are sent for each device.

Adding an Email alert

1. Click on **Add**, a new window will pop up.
2. Name the Alert. The Alert Name can be a person's name.
3. Choose the Alert type from the pull down menu: Email
4. Click on Enable email Remote Alert Notification. This must be checked for emails to be sent out.
5. Enter the email address of who is to receive the remote alerts.
6. Click on the check boxes for messages to be sent to the administrator's specified email address. For more information please refer to the next page for notification configuration.
7. Specify how many minutes apart each email should be sent from Remote Alerts.
8. Click on the **Save Settings** button to ensure the settings are saved.

> **NOTE**
> For email notification to work, the email address must be entered in the "Set Email Configuration" window and the email server must SMTP compliant.

Remote Alert Notification

Message	Example of Problem
System(s) is/are not responding	System is off, Network issues, not reachable by IP
Connectivity problem	Indicates that Polycom ReadiManager LX100 is able to query the system, but is unable to receive status updates.
System(s) reporting errors	Lost Gatekeeper The video endpoint cannot find the gatekeeper that it normally registers with. The gatekeeper might be in an offline state. Microphone unplugged The iPower is detected to have unplugged microphone from the main unit of the video endpoint. Camera unplugged The iPower is detected to have an unplugged camera from the main unit of the video endpoint. Video mode Major error occurring on MGC unit or in one of the cards.
System reporting warnings	Low Battery The battery in the video endpoint remote control is running low. Lost Directory Server The iPower cannot display the Global Directory. The Directory server may be offline. Web Server Redirect Redirect response string (HTTP 3XX) returned from an Other Device server. iPower User Interface not running The iPower user interface is not operating. Minor error occurring on MGC unit or in one of the cards.
System(s) requesting help	User requested assistance

Editing an Email alert

1. Select the alert name that needs to be edited from the list.
2. Click on **Edit**, a window will pop up.
3. Edit the items that require changing.
4. Click on the **Save Settings** button to ensure the settings are saved.

Remote Alert Notification

Email Notification

Here's an example email that is sent when a user requests for help.

> From: GMS - LAN Host Name [Originating Email Address]
> Sent: Friday, September 01, 2001 10:00 AM
> To: Video Communications Network Administrator
> Subject: GMS Alert: 2 system(s) requesting help
>
> Body:
> VS
> Conference Room #1001 - Call 565-1212
> Marketing Conference Room - Call 565-1213

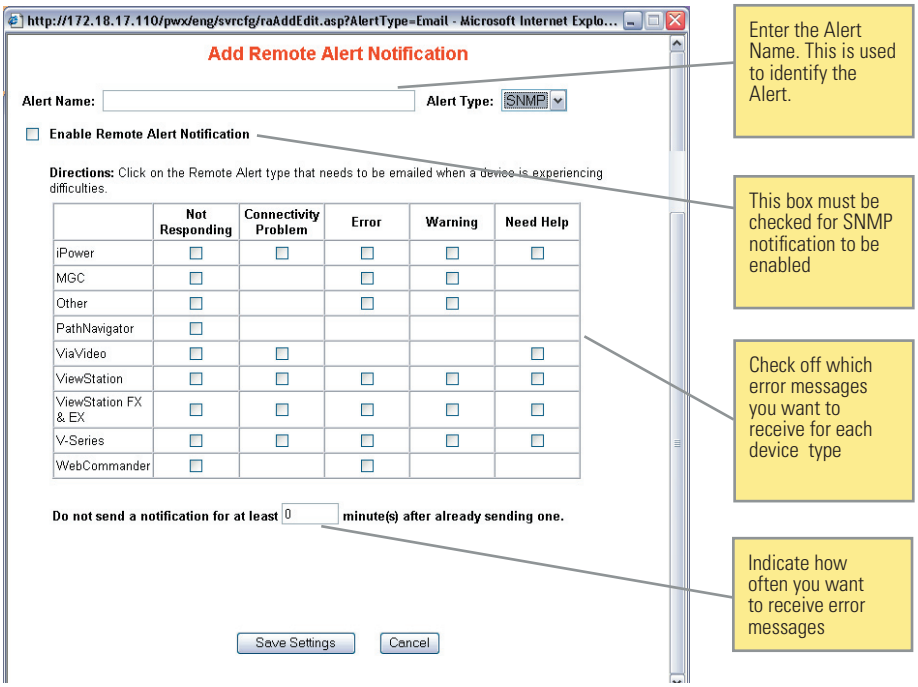
An email of a particular type (i.e., help request) will only be sent once for each status change. For instance, if a user requests help, an email will be sent to the email address specified. No other emails based on that instance will be sent until help requested is acknowledged officially in Polycom ReadiManager LX100. Once the user's help is acknowledged, then an email will be sent to the administrator noting that "All help requests has been acknowledged."

If 2 users request help several minutes apart more than the specified separator time and neither request has been acknowledged, then, 2 emails will be sent. The first email will contain the System name of the first system that requested help. The second email will contain the names of requests from both systems. This second email was driven by the second system requesting help. The newly added second system will have an asterisks next to its name to note that this is new on the list.

Remote Alert Notification

SNMP Configuration

Figure 8.4 Configuration > Remote Alert Notification > Add SNMP Alert


http://172.18.17.110/pwx/eng/svrcfg/raAddEdit.asp?AlertType=Email - Microsoft Internet Explo...
Add Remote Alert Notification
Alert Name:
Alert Type: SNMP
Enable Remote Alert Notification
Directions: Click on the Remote Alert type that needs to be emailed when a device is experiencing difficulties.
Not Responding
Connectivity Problem
Error
Warning
Need Help
iPower
MGC
Other
PathNavigator
ViaVideo
ViewStation
ViewStation FX & EX
V-Series
WebCommander
Do not send a notification for at least 0 minute(s) after already sending one.
Save Settings
Cancel
Enter the Alert Name. This is used to identify the Alert.
This box must be checked for SNMP notification to be enabled
Check off which error messages you want to receive for each device type
Indicate how often you want to receive error messages

The table above shows what type of messages are sent for each device.

Adding a SNMP alert

1. Click on **Add**, a new window will pop up.
2. Name the Alert. The Alert Name can be a person's name.
3. Choose the Alert type from the pull down menu: SNMP
4. Click on Enable SNMP Remote Alert Notification. This must be checked for SNMP traps to be sent out to the SNMP manager.
5. Click on the check boxes to specify which SNMP traps are to be sent for each device type.
   For more information on the notification configuration, please refer to the next page.
6. Specify how many minutes apart each SNMP trap should be issued from Remote Alerts.
7. Click on the **Save Settings** button to ensure the settings are saved.

For the definitions of the MIB, please refer to the appendix section of this User Guide.

For instructions on how to send SNMP traps from the Polycom ReadiManager LX100 server, please refer to the "Sending SNMP traps" document in the documents folder.

Remote Alert Notification

SNMP Configuration

Notification Configuration

Message	Example of Problem
System(s) is/are not responding	System is off, Network issues, not reachable by IP
Connectivity problem	Indicates that Polycom ReadiManager LX100 is able to query the system, but is unable to receive status updates.
System(s) reporting errors	Lost Gatekeeper The video endpoint cannot find the gatekeeper that it normally registers with. The gatekeeper might be in an offline state. Microphone unplugged The iPower is detected to have unplugged microphone from the main unit of the video endpoint. Camera unplugged The iPower is detected to have an unplugged camera from the main unit of the video endpoint. Video mode Major error occurring on MGC unit or in one of the cards
System reporting warnings	Low Battery The battery in the video endpoint remote control is running low. Lost Directory Server The iPower cannot display the Global Directory. The Directory server may be offline. Web Server Redirect Redirect response string (HTTP 3XX) returned from an Other Device server. iPower User Interface not running The iPower user interface is not operating Minor error occurring on MGC unit or in one of the cards
System(s) requesting help	User requested assistance

NOTE

If your system does not have SNMP, this function will be disabled. You will not be able to configure the traps for errors that occur in your network. To enable an SNMP agent, install the Microsoft SNMP from a Windows 2000 or 2003 CD.

Appendix

Appendix

Connecting ViewStations to the LAN

Make sure that a LAN cable connected from the local area network is connected to the orange connector on the back of your ViewStation. See the ViewStation QuickStart booklet for details.

1. Turn on the ViewStation.

2. Press the right arrow button on the remote control to select the System Info icon. Then press the SELECT button to select it.

3 Press the right arrow button on the remote to go to the screens:

   Setup > LAN/SNMP > LAN/Intranet >

   If your LAN uses DHCP, press the up arrow on the remote to go to the DHCP field. Use the arrow button to set the DHCP setting to Client. This enables the ViewStation to obtain an IP address from a server on your network.

   If your LAN does not use DHCP, set DHCP to off in the LAN/Intranet screen and manually enter the IP address, subnet mask and gateway address provided by your system administrator.

4. Restart your ViewStation by turning it off then on again. Go to the System Information screen. You should see your system's IP address. If the IP address displays "...waiting...", the ViewStation did not get an address from a server on your LAN. Check the LAN connection and try again. The green light on the connector should be illuminated and the yellow light should be blinking.

   This ViewStation can now be added to the database.

Appendix

Enabling Polycom ReadiManager LX100 on the iPower

Two items need to be configured in the iPower system before Polycom ReadiManager LX100 can manage the iPower.

- Enable WebRemote in the iPower.
- Configure the gms_admin user in the Administrator Tools folder in Windows.

An optional but recommended item would be to change the iPower system password.

Enable WebRemote in iPower AdminTools

1. Go to Start > PictureTel iPower > Administrator Information > Admin Tools.
2. In the main navigation section, click on **Utilities**, then click on the **Network Management Tab**.
3. Check "Allow Web Remote Management".

Configuring the gms_admin user

1. Go to Start Menu > Settings > Control Panel > Administrative Tools > Computer Management >
2. In the side navigation under System Tools, click on **Local Users and Groups** and then **Users**.
3. Click on **gms_admin** users in the User List. Open the Properties window.
4. In the General Tab, make sure that "Account is disabled" is unchecked and apply the changes.

Changing the iPower password

It is also a good idea to change the default blank password to something else for security reasons.

1. Go to Start Menu > Settings > Control Panel > Administrative Tools > Computer Management >
2. In the side navigation under System Tools, click on **Local Users and Groups** and then **Users**.
3. Click on **gms_admin** users in the User List.
4. Select the menu item **Action** -> Set Password.

This password also needs to be entered into Polycom ReadiManager LX100 when adding the iPower system to the list of managed systems.

Appendix

Modem Installation for SoundStation VTX 1000 Device Support

The Polycom ReadiManager LX100 provides Device Support for SoundStation VTX 1000 conference phones. The SoundStation VTX 1000 is an analog conference phone that requires that a modem to be installed to the server for device support.

The recommended modem for SoundStation VTX 1000 Device Support is the RapidPort/4 Dual Unit PN: 301-1012-08. The RapidPort/4 Dual Unit provides 8 modem ports for GMS to upload software to 8 SoundStation VTX 1000s simultaneously, minimizing upload times for multi-unit upgrades. Software uploads to SoundStation VTX 1000, depending on modem connection parameters, averages 15 – 20 minutes per unit so the Dual Port modem is recommended for large SoundStation VTX 1000 deployments. For smaller deployments, the 4-port version is fine alternative, PN: 301-1012-04

RapidPort/4 modems are not sold by Polycom, but are available worldwide through a broad reseller network. Please visit Digi International's web site for purchase information and a reseller in your area.

http://www.digi.com/products/usb/rapidport4.jsp

Modem Installation:

Install the RapidPort/4 modem on the Polycom ReadiManager LX100 server in accordance with the installation instructions provided with the unit. Digi updates RapidPort/4 modem drivers frequently, so it is highly recommended that the latest modem drivers be installed after the initial installation process for maximum performance, from the following link:

http://www.ionetworks.com/support/epdrivers.jsp#E2K

Using Other Modems:

Using modems other than the RapidPort/4 for SoundStation VTX 1000 Device Support is not recommended and Polycom does not support such modems for this application. However, other modems may perform the same function adequately.

NOTE

If a modem other than RapidPort/4 is used, be sure to configure "MODEM CALL TONE WAIT" to "ON" in the SoundStation VTX 1000 Admin Setup section of the user interface of SoundStation VTX 1000 (not GMS). This VTX configuration change must be made for all VTX units supported by non-RapidPort/4 modems; please see the SoundStation VTX 1000 Administrator's Guide for more details.

Appendix

System Information Window - ViewStation

General Tab

This window displays the following System Management information for the selected ViewStation.

Field	Description
System Name	Name of ViewStation
Host name	LAN Host Name
IP Address	IP Address of ViewStation
Line Status	Displays a row of icons each indicating the state of an ISDN line or IP connection. A green arrow pointing up indicates the line is connected and initialized. A red arrow pointing down indicates the line could not be initialized. It may have been disconnected or is improperly configured. A yellow square indicates that the ViewStation is attempting to initialize the line. A green GK icon indicates that the system is registered with a gatekeeper. A yellow GK icon indicates that the system is attempting to register with a gatekeeper. A red GK icon indicates that the system has failed in it's attempt to register with a gatekeeper.
Call Status	For H.323 calls, one green ball represents system is in a call. For H.320 calls, each green ball represents an ISDN channel that is connected during a call.
Software version	Version of software installed on ViewStation
Video Number	ISDN number of ViewStation
Model	ViewStation model
Serial	Serial number of ViewStation
Local time	The current local time of the ViewStation. In order for the local time to be correctly expressed. NOTE The time difference must be set in the ViewStation. Refer to page 67, to learn how to set ViewStation time.

Appendix

System Information Window - ViewStation

Interface Tab

The type of network connections, associated addresses and network names for the selected ViewStation are revealed in this window.

Field	Description
WAN enabled	States whether this ViewStation is connected to the WAN
WAN Type	The type of WAN interface connected to the ViewStation such as ISDN BRI, ISDN Quad-BRI, V.35/RS-449, PRI, etc.
Line Status	Shows the status of each WAN interface line connected to the system. A green arrow indicates the line is initialized and ready, A red arrow indicates the line is not connected or not functioning properly and a yellow block indicates the line is being initialized
LAN enabled	Indicates whether this ViewStation is connected to the LAN
IP Address	IP Address of the ViewStation
LAN Host Name	System name recognized by the network
H.323 Name	The name that other H.323-enabled systems may use to call this unit.
H.323 Ext	An extension that allows systems to call this system through an H.320 to H.323 gateway

Appendix

System Information Window - ViewStation

Call Status Tab

On this screen you will find detailed information regarding the video call. Each row represents a channel the ViewStation can potentially use.

When the call status ball is green that system is in a call and all the data shown in this window is current for that system. If the call status ball is grey, the data shown represents information for that last incoming or outgoing call.

Video Calls over IP

If the ViewStation establishes an H.323 (video over IP) call, then the video call would be represented by one channel.

Video Calls over ISDN

If the ViewStation uses H.320 (video over ISDN) then the ViewStation video call would be represented by the number of ISDN channels used for the call.

Video Calls Over PRI

PRI-T1 (US) lines have 23 video (B) channels and one data (D) channel. PRI-E1 (Europe) has 30 (B) channels and one data (D) channel.

Cause Codes

Cause Codes are only relevant to ISDN video calls. If an error occurs with one of the channels for a video call, a cause code will appear. The common cause codes for video connection errors are listed in this linked documentation. To view this list for data interpretation, please view page 149 in the appendix.

Caller ID

These numbers represent the last ISDN number this channel connected to. If the channel 1 last connected via an IP call, then this channel shows the IP number. If channel 2 last connected with ISDN then channel 2 shows that ISDN number.

Appendix

System Information Window - ViewStation

Network Stats Tab

This window is only active during a call. The Network Statistics screen describes the video and audio protocols used and the rates at which a call travels over the network and to the party you are calling. If the ViewStation is not in a call, the statistics will appear as dashes.

Field	**Description**	
	B1	B2
Tx Clock Rate	Transmission rate	Transmission rate
Rx Clock Rate	Receiving clock rate	Receiving clock rate
Errors	The number of CRC errors that have occurred during the current call	The number of CRC errors that have occurred during the current call
Sync	The number of synchronization errors that have occurred during the current call	The number of synchronization errors that have occurred during the current call
Video Protocol	The current video protocol in use (H.261, H.263, etc.)	The current video protocol in use (H.261, H.263, etc.)
Video format	The format of the video data (QCIF, FCIF, etc.)	The format of the video data (QCIF, FCIF, etc.)
Audio Protocol	The current audio protocol in use (G.711, G.722, G.728, etc.)	The current audio protocol in use (G.711, G.722, G.728, etc.)
Comm Protocol	The communications protocol in use (H.221, H.223, etc.)	The communications protocol in use (H.221, H.223, etc.)

Appendix

System Information Window - ViewStation

Advanced Stats Tab

The Advance Network Statistics screen contains information about the status of a call. It describes how fast audio and video is coming in and going out during a call. The statistics will continually refresh throughout the duration of the video call. If the ViewStation is not in a call, the statistics will appear as dashes.

Field	**Description**	
	Tx	Rx
Audio rate	Audio Rate transmitted	Receiving Audio rate
Video rate	Transmitting video rate	Receiving video rate
Video Rate Used	The actual amount of bandwidth being used for video data	The actual amount of bandwidth being used for video data
Video Frame Rate	The current number of video frames per second	The current number of video frames per second
Video FEC Errors	The number of Forward Error Correction (FEC) errors that have corrected in the current call	The number of Forward Error Correction (FEC) errors that have corrected in the current call
LSD Protocol	The current Low Speed Data (LSD) channel protocol in use	The current Low Speed Data (LSD) channel protocol in use
LSD Rate	The rate used for Low Speed Data (LSD) channel communications	The rate used for Low Speed Data (LSD) channel communications
MLP Protocol	The current MLP channel protocol in use	The current MLP channel protocol in use
MLP Rate	The rate used for MLP channel communications	The rate used for MLP channel communications
Remote System ID	An identifier string sent by the remote site (usually a manufacturer name)	An identifier string sent by the remote site (usually a manufacturer name)

Appendix

System Information Window - ViewStation FX and EX

Advanced Stats Tab

The Advance Network Statistics screen contains information about the status of a call. It describes how fast audio and video is coming in and going out during a call. The statistics will continually refresh throughout the duration of the video call. If the ViewStation is not in a call, the statistics will appear as dashes.

Field	**Description**	
	Tx	Rx
Audio rate	Audio Rate transmitted	Receiving Audio rate
Video rate	Transmitting video rate	Receiving video rate
Video Rate Used	The actual amount of bandwidth being used for video data	The actual amount of bandwidth being used for video data
Video Frame Rate	The current number of video frames per second	The current number of video frames per second
Video FEC Errors	The number of Forward Error Correction (FEC) errors that have corrected in the current call	The number of Forward Error Correction (FEC) errors that have corrected in the current call
LSD Protocol	The current Low Speed Data (LSD) channel protocol in use	The current Low Speed Data (LSD) channel protocol in use
LSD Rate	The rate used for Low Speed Data (LSD) channel communications	The rate used for Low Speed Data (LSD) channel communications
MLP Protocol	The current MLP channel protocol in use	The current MLP channel protocol in use
MLP Rate	The rate used for MLP channel communications	The rate used for MLP channel communications
Remote System ID	An identifier string sent by the remote site (usually a manufacturer name)	An identifier string sent by the remote site (usually a manufacturer name)
Audio Packet loss	The number of audio packets lost in transmission	The number of receiving audio packets lost in the call
Audio Jitter	The variance from average audio transmission rate	The variance from average audio receiving rate
Video packet loss	The number of video packets lost in the call	The number of video packets lost in the call
Video Jitter	The variance from average video transmission rate	The variance from average video transmission rate

Appendix

System Information Window - ViewStation

Video Tab

Administrators will be able to view video sent and received by the selected ViewStation and confirm connection. The video window displays updates approximately once every five seconds. The screen on the left-hand side shows near video, video out, and the screen on the right displays far video, video in.

NOTE

To ensure security and privacy, the feature of viewing video sent and received by a ViewStation can only be used if remote monitoring is enabled. Remote monitoring is disabled by default. It may only be enabled using the ViewStation remote control.

To Enable Remote Monitoring

Using the ViewStation remote control navigate to:

System Info > User Setup > LAN & H.323 > Global Management >

Click on the "Allow Remote Monitoring" button to enable this feature.

Appendix

System Information Window - V-Series

General Tab

This window displays the following System Management information for the selected V-Series.

Field	Description
System Name	Name of V-Series
Host name	LAN Host Name
IP Address	IP Address of V-Series
Line Status	Displays a row of icons each indicating the state of an ISDN line or IP connection. A green arrow pointing up indicates the line is connected and initialized. A red arrow pointing down indicates the line could not be initialized. It may have been disconnected or is improperly configured. A yellow square indicates that the ViewStation is attempting to initialize the line. A green GK icon indicates that the system is registered with a gatekeeper. A yellow GK icon indicates that the system is attempting to register with a gatekeeper. A red GK icon indicates that the system has failed in it's attempt to register with a gatekeeper.
Call Status	For H.323 calls, one green ball represents system is in a call. For H.320 calls, each green ball represents an ISDN channel that is connected during a call.
Software version	Version of software installed on V-Series
Video Number	ISDN number of V-Series
Model	V-Series model
Serial	Serial number of V-Series
Local time	The current local time of the V-Series. In order for the local time to be correctly expressed.

Appendix

System Information Window - V-Series

Interface Tab

The type of network connections, associated addresses and network names for the selected V-Series are revealed in this window.

Field	Description
WAN enabled	States whether this V-Series is connected to the WAN
WAN Type	The type of WAN interface connected to the V-Series such as ISDN BRI, ISDN Quad-BRI, V.35/RS-449, PRI, etc.
Line Status	Shows the status of each WAN interface line connected to the system. A green arrow indicates the line is initialized and ready, A red arrow indicates the line is not connected or not functioning properly and a yellow block indicates the line is being initialized
LAN enabled	Indicates whether this V-Series is connected to the LAN
IP Address	IP Address of the V-Series
LAN Host Name	System name recognized by the network
H.323 Name	The name that other H.323-enabled systems may use to call this unit.
H.323 Ext	An extension that allows systems to call this system through an H.320 to H.323 gateway

Appendix

System Information Window - V-Series

Call Status Tab

This table displays the following Call Status information for the selected V-Series.

Field	Description
Call Status	For H.323 calls, one green ball represents system is in a call. For H.320 calls, each green ball represents an ISDN channel that is connected during a call.
Call Type	Call Protocol used
Far Site Name	Name of far site endpoint
Far Site Number	Number of IP address of far site endpoint
Local Number	Number of IP address used to call
Cause Code	Relevant to ISDN calls, If the call ended due to an error, a cause code for that error appears here.

Appendix

System Information Window - V-Series

Network Statistics Tab

This table displays the following Network Statistics information for the selected V-Series.

Field	Description	
	B1	**B2**
Tx Clock Rate:	Transmission rate	Transmission rate
Rx Clock Rate:	Receiving clock rate	Receiving clock rate
Errors:	The number of CRC errors that have occurred during the current call	The number of CRC errors that have occurred during the current call
Sync:	The number of synchronization errors that have occurred during the current call	The number of synchronization errors that have occurred during the current call
Packet Loss:	Total number of packets lost in the call.	Total number of packets lost in the call.
Packet Loss (%):	Percentage of packets lost to all packets transferred during the call.	Percentage of packets lost to all packets transferred during the call.
Video Protocol:	The current video protocol in use (H.261, H.263, etc.)	The current video protocol in use (H.261, H.263, etc.)
Video Format:	The format of the video data (QCIF, FCIF, etc.)	The format of the video data (QCIF, FCIF, etc.)
Audio Protocol:	The current audio protocol in use (G.711, G.722, G.728, etc.)	The current audio protocol in use (G.711, G.722, G.728, etc.)
Comm Protocol	The communications protocol in use (H.221, H.223, etc.)	The communications protocol in use (H.221, H.223,)

Appendix

System Information Window - V-Series

Advanced Statistics Tab

This table displays the following Advanced Statistics information for the selected V-Series.

Field	Description	
	Tx	Rx
Audio rate:	Audio Rate transmitted	Receiving Audio rate
Video rate:	Transmitting video rate	Receiving video rate
Video Rate Used:	The actual amount of bandwidth being used for video data	The actual amount of bandwidth being used for video data
Video Frame Rate:	The current number of video frames per second	The current number of video frames per second
Video FEC Errors:	The number of Forward Error Correction (FEC) errors that have corrected in the current call	The number of Forward Error Correction (FEC) errors that have corrected in the current call
Audio Packet Loss:	The number of audio packets lost in transmission	The number of receiving audio packets lost in the call.
Audio Jitter:	The variance from average audio transmission rate.	The variance from average audio receiving rate.
Video Packet Loss:	The number of video packets lost in the call.	The number of video packets lost in the call.
Remote System ID:	An identifier string sent by the remote site (usually a manufacturer name)	An identifier string sent by the remote site (usually a manufacturer name)

Appendix

System Information Window - ViaVideo

General Tab

This window displays the following System Management information for the selected ViaVideo.

Field	Description
System Name	Name of ViaVideo
LAN Host name	Computer name entered in your Windows network configuration settings
IP Address	IP address of ViaVideo
Model	ViaVideo Model
Country	Country where this ViaVideo resides
Call Status	For H.323 calls, one green ball represents system is in a call.
Software version	Version of software installed on ViaVideo
Firmware version	ViaVideo firmware version
Operating System	Operating System of computer hosting ViaVideo
Auto Answer	States whether incoming calls answer without human acknowledgement
Local time	The current local time of ViaVideo

Appendix

System Information Window - ViaVideo

Interface Tab

The type of network connections, associated addresses and network names for the selected ViaVideo are revealed in this window.

Field	Description
IP Address	IP Address of computer hosting ViaVideo
H.323 Name	The system name of ViaVideo. Generally used with Gatekeeper
H.323 Extension	The H.323 extension, or gatekeeper extension
Use Fixed Ports	Specifies the fixed ports assigned to ViaVideo when working with a firewall
TCP Start	Starting TCP port which range is open in firewall
UDP Start	Starting TCP port which range is open in firewall
Use Gatekeeper	Notes whether this ViaVideo is registered with a Gatekeeper
Gatekeeper Address	Gatekeeper IP address which this ViaVideo is registered with
Gatekeeper Message	Message returned from gatekeeper
Use NAT	Alerts ViaVideo to use the IP address that appears in the NAT outside (WAN) address field as its external IP address.
Auto Discover NAT	ViaVideo can automatically discover the NAT external IP address
NAT Outside Address	Specifies the external IP address used by your NAT

Appendix

System Information Window - ViaVideo

Call Status Tab

The type of network connections, associated addresses and network names for the selected ViaVideo are revealed in this window.

Field	Description
State	Status of the call (connected or disconnected)
Call ID	Number of system ViaVideo is connected to at this moment
Name	Name of System ViaVideo is connected to at this moment
Extension	If used, H.323 extension used to make call
Rate	Rate at which the current call is made
Call Placed	Number of calls placed (whether the calls actually connect or not).
Calls Received	Number of calls received
Calls Connected	Number of calls connected
Total Call Time	Total time in calls for calls already completed
Time in Last Call	Length in minutes of the last call

Appendix

System Information Window - ViaVideo

Network Stats Tab

This window is only active during a call. The Network Statistics screen describes the video and audio protocols used and the rates at which a call travels over the network and to the party you are calling. If the ViaVideo is not in a call, the statistics will appear as dashes.

Field	Description
Rate	The clock rate for outgoing packet transfer
Video Protocol	The video transfer protocol used for the call
Video Format	The video format used for encoding and decoding.
Audio Protocol	The audio protocol used for the call.(G.711, G.722, G.728, etc.)
Comm Protocol	The communications protocol used for the call.(H.221, H.223, etc.)
Packet Loss	Total number of packets lost in the call
Packet Loss (%)	Percentage of packets lost to all packets transferred during the call

Appendix

System Information Window - ViaVideo

Advanced Stats Tab

The Advance Network Statistics screen contains information about the status of a call. It describes how fast audio and video is coming in and going out during a call. The statistics will continually refresh throughout the duration of the video call. If the ViaVideo is not in a call, the statistics will appear as dashes.

Field	Description	
	Tx	Rx
Video rate	The actual rate of video packet transfer	The actual rate of video packet transfer
Video Rate Used	The actual amount of bandwidth being used for video data	The actual amount of bandwidth being used for video data
Video Frame Rate	The video transfer rate in frames per second	The video transfer rate in frames per second
Video Packet Loss	The number of video packets lost in the call	The number of video packets lost in the call
Video Jitter	The variance from average video transmission rate	The variance from average video transmission rate
Audio rate	The rate of audio packet transfer	Receiving rate of audio packet transfer
Audio Packet Loss	The number of audio packets lost in transmission	The number of receiving audio packets lost in the call
Audio Jitter	The variance from average audio transmission rate	The variance from average audio receiving rate
Remote System ID	The ID of the remote system. This is the manufacturer's ID of the remote system.	

Appendix

System Information Window - ViaVideo

Details Tab

The type of network connections, associated addresses and network names for the selected ViewStation are revealed in this window.

Video

Field	Description
Color Depth	Number of colors set for monitor properties
Display Mode	Type of video mode
Driver	Video card driver
VGA Resolution	Monitor resolution

Audio

Field	Description
Output	Audio output (i.e., 'Headphones or Speakers' or 'Handset with Microphones')
Volume (0-24)	Volume output is set at
Driver	Driver for audio device on PC during the call.

Field	Description
USB Controller	Type of USB controller

Appendix

System Information Window - iPower

General Tab

This table displays the following System Management information for the selected iPower.

Field	Description
Site Name	Name of iPower unit
LAN Host name	Computer name entered in your Windows network configuration settings.
IP Address	IP address of the iPower
Line Status	Displays a row of icons each indicating the state of an ISDN line or IP connection. A green arrow pointing up indicates the line is connected and initialized. A red arrow pointing down indicates the line could not be initialized. It may have been disconnected or is improperly configured. A yellow square indicates that the ViewStation is attempting to initialize the line. A green GK icon indicates that the system is registered with a gatekeeper. A yellow GK icon indicates that the system is attempting to register with a gatekeeper. A red GK icon indicates that the system has failed in it's attempt to register with a gatekeeper.
Call Status	For H.323 or H.320 calls, one green ball represents system is in a call.
Model	iPower model
Software Version	iPower software version
Operating System	Operating System of iPower
Auto Answer	States whether incoming calls answer without human acknowledgement
Serial	Serial number of the iPower system
Local time	The current local time of the iPower.

Appendix

System Information Window - iPower

Interface Tab

The type of network connections, associated addresses and network names for the selected iPower are revealed in this window.

Field	Description
WAN enabled	States whether this iPower is connected to the WAN
WAN Type	The type of WAN interface connected to the iPower such as ISDN BRI, ISDN Quad-BRI, V.35/RS-449, PRI, etc.
Video Number	Video Number of iPower
Line Status	Shows the status of each WAN interface line connected to the system. A green arrow indicates the line is initialized and ready, a red arrow indicates the line is not connected or not functioning properly and a yellow block indicates the line is being initialized
LAN enabled	Indicates whether this iPower is connected to the LAN
IP Address	IP Address of the iPower
Use Gatekeeper	Notes whether this iPower is configured to registered with a Gatekeeper. This can be 'Yes' indicates a Gatekeeper registration but not an active connection to Gatekeeper.
Gatekeeper Address	Gatekeeper IP address which this iPower is configured to register with
H.323 Name (video)	The name that other H.323-enabled systems may use to call this unit.
H.323 Ext (video)	Also known as the E.164 ID. An extension that allows system to call this system through an H.320 to H.323 gateway.
H.323 Name (voice)	The name that other H.323-enabled systems may use to call this unit, for voice-only calls (VoIP)
H.323 Ext (voice)	Also known as the E.164 ID. An extension that allows system to call this system, for voice-only calls (VoIP)

Appendix

System Information Window - iPower

Call Status Tab

This table displays the following Call Status information for the selected iPower. On this screen you will find detailed information regarding the video call. All calls are represented by a single ball, regardless of the number of channels used. When the call status ball is green, that system is in a call and all the data shown in this window is current for that system. If the call status ball is gray, the data shown represents information for that last incoming or outgoing call.

ISDN voice and VoIP call info is not supported here.

Field	Description
State	Current state of the call. “Call Cleared” means last call ended normally. “Call disconnected” means last call ended abnormally. “Call failed” means last call did not connect.
Call ID	The phone number of the system that iPower is connected to at this moment
Rate	Rate at which the current call is made
H.320 calls placed	Number of H.320 calls placed since system installation, including failed calls.
H.320 calls received	Number of H.320 calls received since system installation, including failed calls.
H.323 calls placed	Number of H.323 calls placed since system installation, including failed calls and VoIP calls.
Voice calls placed	Number of ISDN voice calls placed since system installation, including failed calls.
Voice calls received	Number of ISDN voice calls received since system installation, including failed calls.
Time in calls	Time in H.320, H.323, and VoIP calls since system installation
Time in voice calls	Time in ISDN voice calls since system installation
Time in calls since restart	Time in H.320, H.323, and VoIP calls since system restart
Time in voice calls since restart	Time in ISDN voice calls since system restart
Uptime since restart	Time system has been up since restart

Appendix

System Information Window - iPower

Network Stats Tab

This table displays the following Network Statistics information for the selected iPower. ISDN voice and VoIP call information is not supported here.

Field	Description
Video Protocol for people and content	The video transfer protocol in use (H.261, H.263, etc.) for transmit and receive.
Video Format for people and content	The format of the video data (QCIF, FCIF, etc.) for transmit and receive
Audio Protocol	The current audio protocol in use (G.711, G.722, G.728, etc.) for transmit and receive
Rate	The rate for outgoing data transfer.
Comm Protocol	The communications protocol used for the call.(H.320, H.323, etc.)
Packet Loss	(H.323 only) Total number of packets lost in the call.
Packet Loss (%)	(H.323 only) Percentage of packets lost to all packets transferred during the call.
Sync	(H.320 only) True or False, if the video is in sync or not.

Appendix

System Information Window - iPower

Advanced Stats Tab

This table displays the following Advanced Statistics information for the selected iPower.

Field	Description	
	Tx	Rx
Video Rate for people and content	Transmitting video rate	Receiving video rate
Video Rate Used for people and content	The actual amount of bandwidth being used for video data	The actual amount of bandwidth being used for video data
Video Frame Rate for people and content	The current number of video frames per second.	The current number of video frames per second.
Video Packet Loss for people and content	(H.323 only) The number of video packets lost in the call.	(H.323 only) The number of video packets lost in the call.
Latency for people and content	(H.323 only) Average video packet round trip latency. This is a weighted average, with most recent measurements having highest weighting.	(H.323 only) Average video packet round trip latency. This is a weighted average, with most recent measurements having highest weighting.
Audio rate	The rate of audio packet transfer.	Receiving rate of audio packet transfer.
Audio Packet Loss	(H.323 only) The number of audio packets lost in the call	(H.323 only) The number of receiving audio packets lost in the call.
Audio Latency	(H.323 only) Average audio packet round trip latency. This is a weighted average, with most recent measurements having highest weighting.	(H.323 only) Average audio packet round trip latency. This is a weighted average, with most recent measurements having highest weighting.
Video FEC Errors	The number of Forward Error Correction (FEC) errors that have corrected in the current call	The number of Forward Error Correction (FEC) errors that have corrected in the current call
LSD Protocol	(H.320) The current Low Speed Data (LSD) channel protocol in use	(H.320) The current Low Speed Data (LSD) channel protocol in use
LSD Rate	(H.320) The rate used for Low Speed Data (LSD) channel communications	(H.320) The rate used for Low Speed Data (LSD) channel communications
MLP Protocol	(H.320) The current MLP channel protocol in use	(H.320) The current MLP channel protocol in use
MLP Rate	(H.320) The rate used for MLP channel communications	(H.320) The rate used for MLP channel communications

Appendix

System Information Window - iPower

QoS Tab

Quality of Service is a set of components that allows the differentiation and preferential treatment of network traffic. This table displays the following QoS information for the selected iPower.

Field	Description	
For People video, content video and Audio	Tx	Rx
Service Type	Service Type specifies the level of service required by the data flow.	Service Type specifies the level of service required by the data flow.
Status	RSVP (Resource Reservation Protocol) status. RSVP carries QoS requests and information to a QoS-aware network devices along the path between a sender and one or more receivers	RSVP (Resource Reservation Protocol) status. RSVP carries QoS requests and information to a QoS-aware network devices along the path between a sender and one or more receivers
Average Bandwidth	Specifies the data transmission rate.	Specifies the data transmission rate.
Peak Bandwidth	Specifies the maximum amount of data transmitted in a given period of time.	Specifies the maximum amount of data transmitted in a given period of time..
Bucket Size	Bucket Size field limits the number of credits that can accrue for a given flow.	Bucket Size field limits the number of credits that can accrue for a given flow.

System Information Window - ViewStation/FX and EX, ViaVideo and iPower

Management Tab

More than one ReadyManager LX100 server can manage video endpoints units. This window displays the URL of the different servers that manage the selected endpoint in the system window.

Appendix

System Information Window - VTX1000

General Tab

This window displays the following System Management information for the selected VTX1000.

Field	Description
System Name	Name of VTX 1000
Phone Number:	Phone Number of VTX 1000
Device Serial Number:	Serial Number of VTX 1000
Model:	VTX 1000 model type.
Software Version:	Current Version of Software on VTX 1000
GMT:	The current local time of the VTX Series expressed in GMT.

Appendix

System Information Window - PathNavigator

General Tab

Field	Description
System Name	Title entered in the Gatekeeper Description field in PathNavigator
IP Address	IP Address of PathNavigator
Software Version	Software Version of PathNavigator
Local Time	The current local time of PathNavigator.
Gatekeeper ID	Gatekeeper Identifier

Summary Tab

This table provides a summary of endpoint and bandwidth statistics for PathNavigator.

Field	Description
Registrants	Number of endpoints registered with PathNavigator
Maximum Registrants	Number of registrants allowed by license
Current IP Bandwidth	IP Bandwidth used over network
Current Calls	Current calls that PathNavigator is aware of
Maximum Calls	Number of Calls allowed by license

Appendix

System Information Window - MGC

General Tab

Field	Description
System Name	Name describing the selected MGC
Computer Name	Computer name of MGC
IP Address	IP Address of this MGC
MCU Status	Indicates there is an error or warning occurring with the MGC. This may stem from an error or warning in a card if one of the cards indicate a major error. If none of the cards indicate an error, then, the error is inherent to the unit itself.
Product version	MGC chassis type
MCU Software Version	Software Version of MCU
MCMS Software Version	Software Version of MCMS

Appendix

System Information Window - Web Commander

General Tab

Field	Description
System server status	A 3-digit integer result code of the attempt to understand and satisfy the request. 2xx: Success - The action was successfully received, understood, and accepted 3xx: Redirection - Further action must be taken in order to complete the request 4xx: Client Error - The request contains bad syntax or cannot be fulfilled 5xx: Server Error - The server failed to fulfill an apparently valid request From the world wide web consortium, http://www.w3.org/Protocols/rfc2616/rfc2616-sec6.html#sec6
Name	System Name
Management URL	URL + port which ReadiManager LX100 uses to access web server

Appendix

System Information Window - Other Device

General Tab

Field	Description
System server status	A 3-digit integer result code of the attempt to understand and satisfy the request. 2xx: Success - The action was successfully received, understood, and accepted 3xx: Redirection - Further action must be taken in order to complete the request 4xx: Client Error - The request contains bad syntax or cannot be fulfilled 5xx: Server Error - The server failed to fulfill an apparently valid request From the world wide web consortium, http://www.w3.org/Protocols/rfc2616/rfc2616-sec6.html#sec6
Name	System Name
Management URL	URL + port which ReadiManager LX100 uses to access web server

Appendix

System Information Window - Video endpoints

Alerts Tab

Errors

This column will list errors occurring with this system. The possible error types are as follows:

Error Types
Lost Gatekeeper
The video endpoint cannot find the gatekeeper that it normally registers with. The gatekeeper might be in an offline state.

Microphone unplugged
The iPower is detected to have unplugged microphone from the main unit of the video endpoint.

Camera unplugged
The iPower is detected to have an unplugged camera from the main unit of the video endpoint.

Internal System error
The iPower is detected to have an internal system error.

Cannot find server
This pertains to Web Commander and Other Device. Polycom ReadiManager LX100 is detecting HTTP errors coded either 4XX or 5XX from the device's web server.

Warnings

This column will list warnings occurring with this system. The possible warning types are as follows:

Warning types
Low Battery
The battery in the video endpoint remote control is running low.

Lost Directory Server
The iPower cannot display the Global Directory. The Directory server may be offline.

Web Server Redirect
Redirect response string (HTTP 3XX) returned from an Other Device server.

iPower User Interface not running
The iPower user interface is not operating

Appendix

System Information Window - MGC

Alerts Tab

Error

System

Yes indicates there is a major error occurring with the MGC inherent to the unit itself not stemming from the card. Please consult the MGC Administrator User Guide for troubleshooting information.

Cards

Slot Number - Slot where card resides.

Card Type - Type of card, PRI cards, H.323 cards, etc.

Error - Yes indicates a major error is occurring on that card.

Warnings

System

Yes indicates a minor error occurring with the MGC inherent to the unit itself not stemming from the card. Please consult the MGC Administrator User Guide for troubleshooting information.

Cards

Slot Number - Slot where card resides.

Card Type - Type of card, PRI cards, H.323 cards, etc.

Warning - Yes indicates a minor error is occurring on that card.

Appendix

ISDN Information

Service Profile Identifiers

Service Profile Identifiers (SPIDs) are only allocated by service providers in the United States and Canada. Service providers in these markets create a service profile based on which ISDN features you require, then assign you a unique Service Profile Identifier (SPID) which allows you to use these particular features.

Switch Type	SPIDs Allocated
AT&T 5ESS Custom	None
AT&T 5ESS NI-1	1 per B-channel
NT DMS-100 NI-1	1 per B-channel
NI-2	1 per device
Siemens EWSD NI-1	1 per B-channel
Siemens EWSD NI-2	1 per device
International (outside of United States or Canada)	None

Depending on your ISDN variant, your ISDN line will have zero, one, or two assigned SPIDs.

The following table describes ISDN standard cause values that are sent from the ISDN switch to the router to indicate ISDN call status.

Although the cause values are standardized, each ISDN service provider uses its own version of the cause message wording. Therefore, the cause messages shown in the table below might not be the exact messages that appear on the terminal.

Appendix

ISDN Cause Codes

Cause Code	Cause Description	Definition
1	Unassigned number	The switch received the sent ISDN number in the correct format; however, no destination equipment uses the number.
2	No route to specified transit network	The ISDN exchange cannot recognize the intermediate network through which to route the call.
3	No route to destination	The intermediate network through which the call is routed does not service the destination address.
6	Channel unacceptable	The specified channel does not provide sufficient service quality to accept the requested connection.
7	Call awarded and delivered	The user is assigned an incoming call that is being connected to an already-established call channel.
16	Normal call clearing	Normal call clearing has occurred.
17	User busy	All B channels are in use; the called system acknowledges the connection request, but is unable to accept the call.
18	No user responding	The destination does not respond to the call so the connection cannot be completed.
19	No answer from user (user alerted)	The destination fails to complete the connection within the prescribed time after responding to the connection request. The problem occurs at the remote end of the connection.
21	Call rejected	The destination rejects the call for an unknown reason, although capable of accepting the call.
22	Number changed	No system has been assigned the ISDN number used to set up the call. (The diagnostic field of the message may return an alternate address is assigned to the called equipment.)
25	Non-selected user clearing	The destination rejected the call, although capable of accepting it, because the call was not assigned to the user.
27	Destination out of order	A signaling message cannot be delivered because the interface is not functioning correctly, and therefore the destination can not be reached. This condition might be temporary, though of extended duration; for instance, remote equipment might be turned off.
28	Invalid number format	Destination address presented in an unrecognizable format or an incomplete destination address made the connection unable to be established.

Appendix

ISDN Cause Codes

Cause Code	Cause Description	Definition
29	Facility rejected	The network cannot provide facility requested by the user.
30	Response to STATUS ENQUIRY	The prior receipt of a status inquiry message generated the status message.
31	Normal, unspecified	A normal even has occurred with no standard cause applying. No resulting action is required.
34	No circuit/channel available	The call cannot be taken because no appropriate channel is available to establish the connection.
38	Network out of order	The network is not functioning correctly and this condition may persist for an extended period. The call can not reach the destination and an immediate attempt to reconnect will probably fail.
41	Temporary failure	The network is not functioning correctly and an error occurred. The problem will be resolved shortly.
42	Switching equipment congestion	The network switching equipment is temporarily overloaded and the destination can not be reached.
43	Access information discarded	The network cannot provide the requested access information.
44	Requested circuit/channel not available	An unknown reason prevents the remote equipment from providing the requested channel. This might be a temporary problem.
47	Resource unavailable, unspecified	An unknown reason prevents the remote equipment from providing the requested channel. This might be a temporary problem.
49	Quality of service unavailable	The network cannot provide the requested quality of service (as defined by CCITT recommendation X.213). This might be a subscription problem.
50	Requested facility not sub scribed	The remote equipment supports the requested supplementary service, but only by subscription.
57	Bearer capability not authorized	The caller has requested a bearer capability that the network can provide, but the user is not authorized to use. This might be a subscription problem.
58	Bearer capability not presently available	The network normally provides the requested bearer capability, but not at the present time. This might be due to a temporary network problem or to a subscription problem.

Appendix

ISDN Cause Codes

Cause Code	Cause Description	Definition
63	Service or option not available, unspecified	An unspecified reason prevents the network or remote equipment from providing the requested service option. This might be a subscription problem.
65	Bearer capability not implemented	The network cannot provide the bearer capability requested by the user.
66	Channel type not implemented	The network or the destination equipment does not support the requested channel type.
69	Requested facility not implemented	The supplementary service is not supported by remote equipment.
70	Only restricted digital information bearer is available	The network is unable to provide unrestricted digital information over bearer capability.
79	Service or option not available, unspecified	The network or remote equipment is unable to provide the requested service option for an unspecified reason. This might be a subscription problem.
81	Invalid call reference value	The remote equipment received a call with a call reference that is not currently in use on the user-network interface.
82	Identified channel does not exist	The receiving equipment is requested to use a channel that is not activated on the interface for calls.
83	A suspended call exists but this call identity does not	The network received a call resume request. The call resume request contained a call identify information element that indicates that the call identity is in use for a suspended call.
84	Call identity in use	The network received a call resume request that contained a Call Identify information element that indicates that it is in use for a suspended call.
85	No call suspended	The network received a call resume request when there was not a suspended call pending. This might be a transient error that will be resolved by successive call retries.
86	Call having requested call identity has been cleared	The network received a call resume request. The call resume request contained a call identity information element, which once indicated a suspended call. How ever, the suspended call was cleared either by time-out or by the remote user.
88	Incompatible destination	Indicates that an attempt was made to connect to non-ISDN equipment. For example, to an analog line.
91	Invalid transit network specified	The ISDN exchange was asked to route the call through an unrecognized intermediate network.

Appendix

ISDN Cause Codes

Cause Code	Cause Description	Definition
96	Mandatory information element is missing	The receiving equipment received a message that did not include one of the mandatory information elements. This is usually due to a D-channel error. If this error occurs systematically, report it to your ISDN service provider.
97	Message type nonexistent or not implemented	The receiving equipment received an unrecognized message, either because the message type was invalid or because the message type was valid but not supported. Cause 97 is due to either a problem the local D channel.`
98	Message incompatible with call state or message type nonexistent.	The remote equipment received an invalid message, and no standard cause applies. Cause 98 is usually due to a D-channel error. If this error occurs systematically, report it to your ISDN service provider.
99	Information element nonexistent or not implemented	The remote equipment received a message that includes information elements, which were not recognized. This is usually due to a D-channel error. If this error occurs systematically, report it to your ISDN service provider
100	Invalid information element contents	The remote equipment received a message that includes invalid information in the information element. This is usually due to a D-channel error.
101	Message not compatible with call state	The remote equipment received an unexpected message that does not correspond to the current state of the connection. This is usually due to a D-channel error.
102	Recovery on timer expiry	A timer expiry initiated an error-handling (recovery) procedure. This problem is typically temporary.
111	Protocol error, unspecified	An unspecified D-channel error when no other standard cause applies.
127	Interworking, unspecified	An event occurred, but the network does not provide causes for the action that it takes. The precise problem is unknown.
145	ISDN layer 1 and/or 2 link not established.	User needs to check cabling, ISDN adapter status and network connections.
146	ISDN layer 3 connection to the ISDN switch/network inactive.	A switch protocol error exists, or (in the United States or Canada) a SPID assignment problem. There is either a switch protocol error, or (in the United States or Canada) a SPID assignment problem.
255	ISDN command processing error	The ISDN signaling code has encountered an error processing an ISDN action. ISDN adapter busy-wait and retry.

Appendix

ViewStation Admin Setup Menu

System Info :: Admin Setup :: General Setup

General Setup

ViewStation Field	Type	Meaning
Auto Answer	Checkbox option	Checked - Enables the ViewStation answer incoming calls automatically
Allow Dialing	Checkbox option	Checked - Enables users to place calls. You can still place calls from the web interface
Allow User Setup	Checkbox option	Checked - Enables users to have be full access of changing ViewStation configuration
Allow Address Book Changes	Checkbox option	Checked - Enables users to add or modify address book entries
Keypad Audio Confirmation	Checkbox option	Checked - Enables voice response of number keys pressed in remote
Maximum Time in Call	User Defined Value	Specifies the maximum time a call can be connected

Additional Fields for FX

ViewStation FX Field	Type	Meaning
Display my IP and ISDN information	Checkbox option	• Both – Displays both number types on the system's Home screen. • IP only – Display the system IP number on the Home screen. • ISDN only – Displays the system ISDN number on the Home screen. • None – The system will not display contact numbers on the Home screen.
Auto Answer Point to Point calls	Checkbox option	Yes - Accepts incoming point to point calls automatically.
Auto Answer Multipoint calls	Checkbox option	Yes - Accepts incoming multipoint calls automatically.
Display Speed Dial	Checkbox option	Checked - Displays speed dial information
Screen Saver Wait time	Pull down menu	The time the system will delay before going into standby mode after non use

Appendix

ViewStation Admin Setup Menu

System Info :: Admin Setup :: LAN / H.323 :: H.323

Gatekeeper

ViewStation Field	Type	Meaning
Use Gatekeeper	Radio Button	Used to enable, disable or configure an H.323 gatekeeper
Gatekeeper Address	User Defined Value	IP Address of Gatekeeper with which the ViewStation will register
Default Outbound Call Route	Radio Buttons	Gateway selected - Calls made to the outside will be routed through gateway ISDN selected - Calls made to the outside will be routed through the unit's native ISDN line

Gateway Number

ViewStation Field	**Type**	**Meaning**
Gateway Number type	Radio Buttons	Direct Inward Dial(DID) - Specifies whether unit has its own number when accessing from outside Number + Extension - Specifies whether unit has a number + extension when accessing from outside
Number of digits in DID number	User Defined Value	This number refers to the 7 digits in the dialed number after the country code and area code.
Number of digits in extension	User Defined Value	Specifies how many digits are in the extension

Gateway Setup

ViewStation Field	**Type**	**Meaning**
Prefix/Suffix	User Defined Value	The Prefix and Suffix is pre-programmed on the Gateway and is also associated with a bandwidth used for the Gateway to make a call.

Appendix

ViewStation Admin Setup Menu

System Info :: Admin Setup :: LAN / H.323 :: H.323

QoS

ViewStation Field	Type	Meaning
Used Fixed Ports	Checkbox option	Checked - Specifies the fixed ports assigned to ViewStation when working with a firewall
TCP Ports	User Defined Value	TDP Ports open in firewall for IP communication
UDP Ports	User Defined Value	UDP Ports open in firewall for IP communication
Type of Service Field	Radio Buttons	Specifies whether to use IP Prec or DiffServ parameters for the Type of Service
Type of Service Value (IP Precedence)	User Defined Value	Specifies the priority given IP packages sent to the ViewStation.
Type of Service Value (DiffServ)	User Defined Value	Specifies IP packet service requirements
System is behind a NAT	User Defined Value	Alerts ViewStation to use the IP address that appears in the NAT outside (WAN) address field as its external IP address. When using a Virtual Private Network (VPN) for network connection, make sure that System is behind a NAT is NOT selected.
Auto discover NAT address	Checkbox option	Checked - Option for the ViewStation to discover its NAT outside (WAN) address automatically

Appendix

ViewStation Admin Setup Menu

System Info :: Admin Setup :: LAN / H.323 :: Global Address

Server

ViewStation Field	Type	Meaning
Server IP Address	User Defined Value	IP address for the Global Directory server
Server Password	User Defined Value	Global Directory server password
Display Global Addresses	Checkbox option	Checked - Enables Global Directory addresses to appear in the ViewStation address book
Register this system when powered on	Checkbox option	Checked - Enables the ViewStation address to appear in the Global Directory when powered on. If disabled, the ViewStation has access to the Global Directory but does not appear in the Global Address books of other ViewStations.

Preferences

ViewStation Field	Type	Meaning
Show Addresses: ISDN Video Calls/H.323 Calls/ Both	Radio Button	This displays the ISDN number in H.320 calls/H.323 calls/ or Both
Max Line Speed: ISDN Video Calls	Drop Down Menu	Define the maximum speed used for a H.320 call when calling from the Global Directory
Max. Line Speed: International ISDN Calls	Drop Down Menu	Define the maximum speed used for an international H.320 call when calling from the Global Directory
Max Line Speed: LAN/ Internet Calls	Drop Down Menu	Define the maximum speed used for a H.323 call when calling from the Global Directory

Appendix

ViewStation Admin Setup Menu

System Info :: Admin Setup :: LAN / H.323 :: Global Address

Advanced Preferences

ViewStation Field	Type	Meaning
Primary Call Type Choice	Drop Down Menu	The default call type for address book entries with multiple call type choices.
Secondary Call Type Choice	Drop Down Menu	The second choice call type for address book entries with multiple call type choices.

Preferred Alias

ViewStation Field	Type	Meaning
Preferred Alias	Radio Buttons	Gateway Number - The Gateway Number will appear as this unit's video number in the Global Directory ISDN Number - The ISDN number will appear as this unit's video number in the Global Directory Called Line Identifier (CLID) -The CLID will appear as this unit's video number in the Global Directory Extension -The extension will appear as this unit's video number in the Global Directory

Appendix

ViewStation Admin Setup Menu

System Info :: Admin Setup :: LAN / H.323 :: Global Address

Dialing Rules 1

ViewStation Field	Type	Meaning
Number of Digits in Extension	User Defined Value	Sets the number of digits in the dialing extension. Usually applies to systems that are on a PBX.
International Dialing Prefix	User Defined Value	Prefix required to place international calls. This prefix is automatically appended to any international calls made from the Global Directory. This overrides the international dialing prefix that is normally set in the ViewStation Country Setup screen.
Public Network Access	Drop Down Menu	Enables this system to dial calls outside of your private network.
Public Network Dialing Prefix	User Defined Value	Dialing prefix as required by the PBX to dial out to the public network. This prefix is automatically inserted before the dialing numbers to the public network from the Global Directory.
Public Network Prefix (same area code)	User Defined Value	Dialing prefix required by your PBX to dial out to the public network. This prefix is automatically inserted before the dialing numbers to the public network in the Global Directory.
Private Network Access	Drop Down Menu	Enables this system to use a private network for calls.
Private Network Prefix (same area code)	User Defined Value	Dialing prefix that is used to access an organization from outside the private network.

Dialing Rules 2

ViewStation Field	Type	Meaning
Always dial area code	Checkbox option	Checked - User will need the area code to dial sites that have the same local area code as the ViewStation.
Area Code	User Defined Value	Area code for configuration
Prefix	User Defined Value	Set prefixes dialed before the area code.

Appendix

ViewStation Admin Setup Menu

System Info :: Admin Setup :: LAN / H.323 :: Global Management

GMS Setup

ViewStation Field	Type	Meaning
Time Difference from GMT	Drop Down Menu	Time difference from where the ViewStation is installed and Greenwich Mean Time (GMT). This allows the Global Management administrator to view the local time of the managed ViewStation.
Daylight Savings Time	Checkbox option	Enable this option if the area where the ViewStation is installed participates in Daylight Savings Time.
Require Account Number to Dial	Checkbox option	Checked - Requires the user to dial an account number before the call can go through.
Validate Account Number	Checkbox option	Checked - Enables ReadiManager LX100 to verify whether an account exist when a user is placing a call. If the account does not exist, the call is disconnected.

Global Management Server URLs

ViewStation Field	Type	Meaning
Global Management Server URLs	Value from ReadiManager LX100	Lists all ReadiManager LX100 URLs managing this system

Appendix

ViewStation Admin Setup Menu

System Info :: Admin Setup :: LAN / H.323 :: Global Management

Contact Information

ViewStation Field	Type	Meaning
Contact Person	User Defined Value	The name or title of the person who operates the ReadiManager LX100
Contact Number	User Defined Value	The phone number (country, area code, and phone number of the contact person
Contact Email	User Defined Value	The email address of the contact person
Contact Fax	User Defined Value	The fax number of the contact person
Tech Support User	User Defined Value	An individual who is familiar with the ViewStation
City	User Defined Value	City for the contact person or ViewStation
State / Province	User Defined Value	State/Province of the contact person or ViewStation
Country	User Defined Value	Country of the contact person or ViewStation

Appendix

ViewStation Admin Setup Menu

System Info :: Admin Setup :: Phone/Audio

Phone/Audio

ViewStation Field	Type	Meaning
Mute Auto Answer Calls	Checkbox option	Checked - The ViewStation will automatically place the Microphone Pod in Mute when an incoming call is automatically answered by the ViewStation. Unchecked - The ViewStation will send audio to the far site when a call is automatically answered.
Sound Effects Volume	User Defined Value	Adjusts the volume of the sounds that the ViewStation makes when you select an object on the screen with the remote control.
VCR Audio Out Always On	Checkbox option	Checked - When a device (VCR, DVD or other) is connected to the VCR IN port, the audio from that device is "Always On" Un-checked - When the same device (VCR, DVD or other) is connected to both the VCR IN and OUT ports of the ViewStation, un-check this to prevent an audio feedback loop.
Audio Quality	User Defined Value	The Audio Quality Preference screen adjusts the line speed. At above 168 kilobits per second, the system uses G.722 48Kb high-fidelity audio. When placing a call at 168 Kilobits per second and below, the system uses G.728 16Kb audio.
Acoustic Plus 716		Checked - Enables endpoint to transmit audio at less than half the rate of the previous standard. Hence, there is more bandwidth left over for video.

Appendix

ViewStation Admin Setup Menu

System Info :: Admin Setup :: Video / Camera

Cameras

ViewStation Field	Type	Meaning
Snapshot Camera	Radio Buttons	Select the camera used for snapshots. 1 The ViewStation will use camera number 1 for snapshots. 2. The ViewStation will use camera number 2 for snapshots. 3. The ViewStation will use camera number 3 for snapshots. 4. The ViewStation will use camera number 4 for snapshots.
PIP	Radio Buttons	Auto: The PiP window is displayed when a call is made and when the remote control is not resting on a flat surface. On: The PiP is displayed continuously. Off: The PiP is not displayed.
Far Control of Near Camera	Checkbox option	Checked - The Far Control of Near Camera allows a user on the far site to manipulate the camera by pressing the FAR button on the remote control.
Backlight Compensation	Checkbox option	Checked - The camera automatically adjusts for low lighting.
Camera Direction	Radio Buttons	Normal - Normal camera direction is used when a speaker is behind the ViewStation facing an audience. When the left button is pressed, the camera will move right and when the right button is pressed, the camera will move right. Reversed - The reversed camera direction is used for videoconferencing when the speaker is sitting at a conference table.

Appendix

ViewStation Admin Setup Menu

System Info :: Admin Setup :: Video / Camera

Cameras

ViewStation Field	Type	Meaning
Primary Camera	Radio Buttons	Primary Camera: Select the primary camera used each the ViewStation is powered on. The main camera cannot be disconnected. However, it does not have to be the primary camera. 1. Camera 1 or the Main Camera (default). 2. Camera 2 if connected to the ViewStation. 3. Camera 3 if connected to the ViewStation. 4. Camera 4 if connected to the ViewStation

Monitors

ViewStation Field	Type	Meaning
Snapshot Timeout	Checkbox option	Select the camera used for snapshots. Checked - By default, all slides and snapshots are displayed for a period of 4 minutes. When the display times out after 4 minutes, the ViewStation automatically returns to live video. Un-checked - The snapshot or slide stays on screen indefinitely until the user presses the snapshot button on the remote control to return of live video.
Number of Monitors	Radio Buttons	1: The ViewStation will use monitor number one. 2: The ViewStation will use monitor number two.

Appendix

ViewStation Admin Setup Menu

System Info :: Admin Setup :: Security

Security

ViewStation Field	Type	Meaning
Admin Password	User Defined Value	The password used to access the ViewStation web interface screen.
Meeting Password	User Defined Value	The Meeting Password is used to view PowerPoint slides over the web.
Software Update Password	User Defined Value	A software update password is required when updating the software over an H.320 or ISDN. NOTE This password does not affect soft update through Polycom ReadiManager LX100 and Global Management System.
	Radio Buttons and User Defined Value	A conference password is sometimes required for a multi-point conference that uses a third-party MCU.

Appendix

V-Series Admin Setup Menu

System Info :: Admin Setup :: General Settings

System Settings

V-Series Field	Type	Meaning
Maximum Time in Call	User Defined Field	Maximum number of minutes allowed for call length.
Allow Mixed IP and ISDN calls	Checkbox option	If you have both IP and ISDN capabilities, specify whether users can make mixed calls.
Auto-Answer Point to Point	Pull down menu	Yes - Accepts incoming point to point calls automatically.
Auto-Answer Multipoint	Pull down menu	Yes - Accepts incoming multipoint calls automatically.
Allow directory Changes	Checkbox option	Unchecked - Locks down the Directory and prevent users from making any changes. Checked - Allows Directory changes
Confirm directory Additions	Checkbox option	Checked - Prompts user to confirm new Directory entries.
Confirm Directory Deletions	Checkbox option	Checked - Prompts user to confirm deletions of Directory entries.
Allow Access to User Settings	Checkbox option	Checked - Displays User Settings button on the Admin Settings screen.
Far site Name Display time	Pull down menu	Specifies how long the far site name to appear on the screen when the call is first connected.
Display time in Call	Pull down menu	Displays time that the current call has been connected.
Keypad Audio Confirmation	Checkbox option	Checked - Allows user to hear a voice confirmation of the numbers selected with the remote control.
Call Detail Report	Check box option	Checked - Allows calls to be recorded
Recent Calls	Checkbox option	Checked - Provides navigational tool for call history.
Color Scheme	Pull down menu	Enables the customization of the look of the system with five different color schemes.
Screen Saver Wait Time	Pull down menu	The time the system will delay before going into standby mode after nonuse

Appendix

V-Series Admin Setup Menu

System Info :: Admin Setup :: General Settings

Home ScreenSettings

V-Series Field	Type	Meaning
Dialing Display	Pull down menu	Dialing entry field - Includes the dialing entry field on the Home screen. Display Marquee - Allows the addition of text to the dialing entry field of the Home screen.
Enter Marquee Text	User Defined Field	The Marquee text that will appear in the "Dialing entry field" when Display Marquee is selected.
Call Quality	Checkbox option	Checked - Allow users to select the speed/bandwidth of the call.
H.323 Extension (E.164)	Checkbox option	Checked - Displays the IP dialing extension on the main call screen
Directory	Checkbox option	Checked - Includes the Directory button on the Home screen.
System	Checkbox option	Checked - Includes the System button on the Home screen.
Multipoint	Checkbox option	Checked - Includes the Multipoint navigational item on the Home screen.
System Name	Checkbox option	Checked - Includes the System Name on the home screen.
IP or ISDN Information	Pull Down Menu	• Both – Displays both number types on the system's Home screen. • IP only – Display the system IP number on the Home screen. • ISDN only – Displays the system ISDN number on the Home screen. • None – The system will not display contact numbers on the Home screen.
Local Date and Time	Checkbox option	Checked - Displays the local time on the Home screen.
Do Not Disturb Icon	Checkbox option	Checked - Displays "Do not disturb icons" on Home screen.
Sites	Checkbox option	Checked - Displays icons created for frequently called sites on Home screen.

Appendix

V-Series Admin Setup Menu

System Info :: Admin Setup :: General Settings

Security

V-Series Field	Type	Meaning
Admin Password	User Defined Field	The password used to access the V-Series web interface screen.
Meeting Password	User Defined Field	The meeting password used by the system for dialing into an MCU for a multipoint conference with a password already set.
Enable FTP Access	Checkbox option	Checked- Enables the system to have files transferred to it via FTP; required for some ReadiManager LX100 features.
Enable Web Access	Checkbox option	Checked - Enables remote access of the system through its web interface.
Enable Telnet Access	Checkbox option	Checked - Enables the system to be accessed via Telnet; required for Device Tracing in ReadiManager LX100.
Enable Encryption	Checkbox	Specifies whether to encrypt calls with other sites that support AES encryption.

Location

V-Series Field	Type	Meaning
Date Format	Pull down menu	Specifies your format preference for the date display and lets you enter your local date.
Time Format	Pull down menu	Specifies your format preference for the time display and lets you enter your local time.
Daylight Savings Time	Checkbox option	Daylight Saving Time Specifies whether it is daylight saving time.
Time Difference from GMT	Pull down menu	Specifies the time difference between GMT (Greenwich Mean Time) and your location.
Time Server	Pull down menu	Specifies connection to a time server for automatic system time settings.
Time Server Address	Pull down menu	IP address of time server

Appendix

V-Series Admin Setup Menu

System Info :: Admin Setup :: Video Network :: IP Network

H.323 Settings

V-Series Field	Type	Meaning
Enable IP H.323	Checkbox option	Checked - Enables IP dialing.
Display H.323 extension	Checkbox option	Checked - Displays the IP dialing extension on the main call screen.

Gatekeeper

V-Series Field	Type	Meaning
Use Gatekeeper	Pull down menu	Indicates whether a gatekeeper will be used
Gatekeeper IP address	User Defined Field	IP address of Gatekeeper
Outbound Call Route	Pull down menu	Gateway—Select this option if your outbound call needs to be handled by a Gateway. ISDN—Select this option if the system is connected to an ISDN line. ISDN is the default.
Use PathNavigator for Multipoint Calls	Checkbox	Specifies whether multipoint calls use the system's internal multipoint capability or the PathNavigator Conference on Demand feature.

Gateway

V-Series Field	Type	Meaning
Country Code	User Defined Field	Country code for the country in which the gateway is located.
Area Code	User Defined Field	Area code of the gateway.
Number	User Defined Field	Number of the gateway.
Gateway Number Type	Pull down menu	Specifies the gateway number type when dialing this endpoint.
Number of Digits in DID	User Defined Field	Number of digits in the subscriber number, e.g., United States is 7
Number of Digits in extension	User Defined Field	Number of digits as determined by the dialing plan of the organization to which the system belongs to.

Appendix

V-Series Admin Setup Menu

System Info :: Admin Setup :: Video Network :: IP Network

Firewall

V-Series Field	Type	Meaning
Fixed Ports	Checkbox option	Checked: Enables the use of fixed ports on this system.
Fixed TCP ports lower limit	User Defined Field	Specifies lower limit for TCP fixed ports used by this system.
Fixed TCP ports upper limit	User Defined Field	Specifies higher limit for TCP fixed ports used by this system.
Fixed UDP ports lower limit	User Defined Field	Specifies lower limit for UDP fixed ports used by this system.
Fixed UDP ports upper limit	User Defined Field	Specifies higher limit for UDP fixed ports used by this system.
NAT Configuration	Pull Down Menu	Specifies whether the system should determine the NAT Public WAN Address automatically. • If the system is behind a NAT that allows HTTP traffic, select Auto. • If the system is behind a NAT that does not allow HTTP traffic, select Manual. • If the system is connected to the IP network through a Virtual Private Network (VPN), select Off.
NAT Public Address	Checkbox	Checked - Displays the address that callers from outside the LAN use to call your system.
Address Displayed in Global Directory	Checkbox	Checked - Displays this system's address in the public or private Global Directory.
NAT is H.323 Compatible	Checkbox	Checked - Specifies that the NAT is H.323 compatible.

Appendix

V-Series Admin Setup Menu

System Info :: Admin Setup :: Video Network :: ISDN BRI Protocol

ISDN BRI Protocol

V-Series Field	Type	Meaning
Enable ISDN H.320	Checkbox option	Checked - Enables ISDN dialing.
Number of ISDN Channels to Dial in Parallel	User Defined Field	This is the number of ISDN bearer channels that will be dialed in parallel when placing an outgoing ISDN call from a BRI or PRI NIC located in slot 0.
ISDN Switch Protocol	Pull down menu	The current ISDN switch protocol that is in use by the network card in slot 0.
Outside Line Dialing Prefix	User Defined Field	The prefix number that the system needs to dial (if any) before making calls.

System Info :: Admin Setup :: Video Network :: Call Quality

Call Quality

V-Series Field	Type	Meaning
Primary Call Type Choice	Pull Down Menu	Specifies protocol used and order when placing outgoing calls from the directory
Secondary Call Type Choice	Pull Down menu	Specifies protocol and order used when placing outgoing calls from the directory

System Info :: Admin Setup :: Video Network :: Preferred Line Speeds

Preferred Line Speeds

V-Series Field	Type	Meaning
Preferred Line Speed	Pull Down menu	Select the preferred line speed for the following call types: • IP Calls (H.323) • ISDN Video Calls (H.320) • International ISDN Calls

Appendix

V-Series Admin Setup Menu

System Info :: Admin Setup :: Global Services

Directory Servers

V-Series Field	Type	Meaning
Global Directory (GDS)	User Defined Field	IP address for the Global Directory server
Register	Checkbox	Checked -Enables this system to appear in the Global Directory when powered on
Password	User Defined Field	Global Directory server password
Display Global Addresses	Checkbox option	Checked -Enables the Global Directory addresses to appear in the V-Series address book
Display Name in Global Directory	Checkbox option	Checked - Displays other registered systems in the Global Directory.
Save Global Directory to System	Checkbox option	Checked - Enables the V-Series address to appear in the Global Directory when powered on. If disabled, the V-Series has access to the Global Directory but does not appear in the Global Address books of other V-Series.

My Information

V-Series Field	Type	Meaning
Contact Person	User Defined Field	The name or title of the person who operates the ReadiManager LX100
Contact Number	User Defined Field	The phone number (country, area code, and phone number of the contact person)
Contact Email	User Defined Field	The email address of the contact person
Contact Fax	User Defined Field	The fax number of the contact person
Tech Support	User Defined Field	An individual who is familiar with the V-Series
City	User Defined Field	City for the contact person or V-Series
State / Province	User Defined Field	State/Province of the contact person or V-Series
Country	User Defined Field	Country of the contact person or V-Series

Appendix

V-Series Admin Setup Menu

System Info :: Admin Setup :: Monitors

Monitors

V-Series Field	Type	Meaning
Monitor 1	Pull Down Menu	
Monitor 2	Pull Down Menu	
PIP	Pull Down Menu	The PIP (Picture in Picture) allows the near site to adjust near-camera views while in a call. The following initial settings are available: **Auto** – The PIP window is displayed when the call is first connected and when the remote control is not resting on a flat surface. **On** – The PIP window stays on the duration of the call. The first position is the bottom right corner of the screen. **Off** – The PIP window is not displayed during the call. Note that the PIP can be turned on and off during the call and can be moved to different areas of the screen by pressing the PIP button on the remote control.
Graphics Content Display	Pull Down Menu	If you are using two monitors with your system, you can specify the monitor for the display of any graphics content.
Display Icons in a Call	Checkbox option	Selecting this option displays all on-screen graphics, including icons and informational text, during a call. This option is enabled by default.
Snapshot Timeout	Checkbox option	
Dual Monitor Emulation	Checkbox option	Selecting this option when you are in a call, splits the screen in two. Both the near and far cameras are displayed together, as opposed to seeing far camera in the main view and the near camera in the PIP.
Graphics VGA		
VGA Resolution	Pull Down Menu	

Appendix

V-Series Admin Setup Menu

System Info :: Admin Setup :: Cameras

Cameras

V-Series Field	Type	Meaning
Far Control of near camera	Checkbox option	Specifies whether the far site can control the position of the near-site camera. When this option is selected, a user at the far site can control the framing and angle of the camera for the best view of the near site.
Backlight Compensation	Checkbox option	Specifies whether to have the camera automatically adjust for a light background. Backlight compensation is best used in situations where the subject appears darker than the background.
Primary Camera	Pull Down menu	Specifies which camera is the main camera.
Camera Direction	Pull Down menu	Specifies the direction the camera moves when using the arrow buttons on the remote control.

Appendix

V-Series Admin Setup Menu

System Info :: Admin Setup :: Audio Settings

Audio Settings

V-Series Field	Type	Meaning
Sound Effects Volume	Pull Down Menu	Sets the volume level of the ring tone and user alert tones.
Incoming Video Call	Pull Down Menu	Specifies the ring tone used for incoming calls.
User Alert Tones	Pull Down Menu	Specifies the tone used for user alerts.
Mute Auto-Answer Calls	Pull Down Menu	Specifies whether to mute incoming calls. Incoming calls are muted by default until you press the Mute button on the microphone pod or on the remote control.
Line Input (Red)	Pull Down Menu	Specifies the equipment you are connecting to the audio input connectors on the back of the unit – an audio mixer or the audio connections for a VCR.
Line Input Level (red)	Pull Down Menu	Sets the volume level for the line with which it is associated.
Line Echo Canceller (red)	Pull Down Menu	
Line Input (white)	Pull Down Menu	Specifies the equipment you are connecting to the audio input connectors on the back of the unit – an audio mixer or the audio connections for a VCR.
Line Input Level (white)	Pull Down Menu	Sets the volume level for the line with which it is associated.
Line Echo Canceller (white)	Pull Down Menu	
Line Outputs	Pull Down Menu	Specifies how the audio output behaves. The default selection, Monitor - Far Site Audio, supplies audio to the Monitor 1 audio outputs only when the system is receiving audio from the far site. If you have connected a VCR to record the conference, select VCR - Far and Near Audio to supply audio from both the far site and the system's microphone pods to the VCR.
Line Outputs Level	Pull Down Menu	Sets the volume level for the line with which it is associated.
Master Audio Volume	Pull Down Menu	Sets the volume level for audio from the far site.
Midrange Speaker	Pull Down Menu	Specifies whether to use the system's built-in midrange speaker. You may prefer to turn off the midrange speaker if you connect the audio output to Monitor 1.

Subwoofer Speaker	Pull Down Menu	Specifies whether to use the system's subwoofer. You may prefer to turn off the subwoofer speaker if you connect the audio output to Monitor 1. The system will not operate if you disconnect the subwoofer.
Subwoofer Level	Pull Down Menu	Sets the volume level for the subwoofer without changing the master audio volume.
Bass	Pull Down Menu	Sets the volume level for the lower frequencies without changing the master audio volume.
Treble	Pull Down Menu	Sets the volume level for the higher frequencies without changing the master audio volume.

Appendix

V-Series Admin Setup Menu

System Info :: Admin Setup :: LAN Properties

LAN Properties

V-Series Field	Type	Meaning
Connect to my LAN	Checkbox option	Specifies whether the system is part of the LAN.
Allow IP calls	User Defined Field	Enables the system to make and receive IP calls.
IP Address	Pull Down menu	Specifies how the system obtains an IP address. • Obtain IP Address Automatically — Select if the system gets an IP address from the DHCP server on the LAN. • Enter IP Address Manually — Select if the IP address will not be assigned automatically.
Use the Following IP Address	Pull Down menu	If the system obtains its IP address automatically, this area displays the IP address currently assigned to the system. If you selected Enter IP Address Manually, enter the IP address here.
DNS Servers	User Defined Field or Auto Populated with DHCP	Displays the DNS servers currently assigned to the system. If the system does not automatically obtain a DNS server address, enter up to four DNS servers here.
Default Gateway	User Defined Field or Auto Populated with DHCP	Displays the gateway currently assigned to the system. If the system does not automatically obtain a gateway IP address, enter one here.
Subnet Mask	User Defined Field or Auto Populated with DHCP	Displays the subnet mask currently assigned to the system. If the system does not automatically obtain a subnet mask, enter one here.
WINS Server	User Defined Field or Auto Populated with DHCP	Displays the WINS server currently assigned to the system. If the system does not automatically obtain a WINS server IP address, enter one here.
WINS Resolution	Checkbox option	Sends a request to the WINS server for WINS name resolution.

LAN Speed	Pull Down menu	Specify the LAN speed to use. Note that the speed you choose must be supported by the switch. Choose **Auto** to have the network switch negotiate the speed automatically. If you choose 10 Mbps or 100 Mbps, you must also select a duplex mode.
Duplex Mode	Pull Down menu	Specify the Duplex mode to use. Note that the Duplex mode you choose must be supported by the switch. Choose **Auto** to have the network switch negotiate the Duplex mode automatically.

Appendix

V-Series Admin Setup Menu

System Info :: Admin Setup :: Global Services

Dialing Rules

V-Series Field	Type	Meaning
Number of Digits in Extension	User Defined Value	Sets the number of digits in the dialing extension. Usually applies to systems that are on a PBX.
International Dialing Prefix	User Defined Value	Prefix required to place international calls. This prefix is automatically appended to any international calls made from the Global Directory. This overrides the international dialing prefix that is normally set in the V-Series Country Setup screen.
Public Network Access	Drop Down Menu	Enables this system to dial calls outside of your private network
Public Network Dialing Prefix	User Defined Value	Dialing prefix as required by the PBX to dial out to the public network. This prefix is automatically inserted before the dialing numbers to the public network from the Global Directory.
Public Network (same area code) Prefix	User Defined Value	Dialing prefix required by your PBX to dial out to the public network. This prefix is automatically inserted before the dialing numbers to the public network in the Global Directory.
Private Network Access	Drop Down Menu	Enables this system to use a private network for calls
Public Network (same area code) Prefix	User Defined Value	Dialing prefix that is used to access an organization from outside the private network
If Area Code =	User Defined Value	Area code for configuration
Dial Prefix	User Defined Value	Set prefixes dialed before the area code
Always dial area code	Checkbox option	Checked - User will need the area code to dial sites that have the same local area code as the V-Series.
Dial 1+ for all USA calls	Checkbox Option	Enable this option if you must dial a “1” before the area code.

Appendix

V-Series Admin Setup Menu

System Info :: Admin Setup :: Global Services

Account Validation

V-Series Field	Type	Meaning
Require Account Number to Dial	Checkbox option	Checked - Enables account validation feature. Prompts user to enter an account number before placing a call.
Validate Account number	Checkbox option	Checked - Validates account number that was entered

Appendix

iPower Admin Setup Menu

Admin Tools :: General :: Call Preferences

Automatic Answer

iPower Field	Type	Meaning
Answer incoming video calls automatically	Check box	Checked - Enables the ViewStation answer incoming calls automatically
Mute audio for automatically answered calls	Check box	Checked - The iPower will automatically be placed in mute when an incoming call is automatically answered. Unchecked - The iPower will send audio to the far site when a call is automatically answered

Automatic Answer

iPower Field	Type	Meaning
Display number last dialed	Radio button	Never: Call information is not displayed. In order to redial, users must type the number again. Only if call fails: Call information is saved for redialing when a call fails to connect. Always: All calls can be redialed. This is the default setting.

Log File Security

iPower Field	Type	Meaning
Record numbers in the Call Log file	Check box	When checked, the system will include dialed numbers in the User Call Log entries. To ensure user privacy, leave this box unchecked. Calls are then entered in the log without the dialed numbers
Disable integrated T.120 data and application sharing	Check box	Check this box if you want to activate T.120 over a LAN, independent of a video call. If you want T.120 enabled automatically as part of a video call, leave this box unchecked.

Appendix

iPower Admin Setup Menu

Admin Tools :: General :: Logon and Security

Logon

iPower Field	Type	Meaning
Standard Windows Logon	Radio button	Lets users log on by entering the user name and password for a local Windows user account, a Windows domain account, or the system default user account. Users have the privileges you define for these accounts.
Auto Logon	Check box	Lets users log on without entering a user name or password. The system displays the Logon dialog box with the default user name and the password already filled in. This means that anyone can use the system. Users have the privileges defined for the default user account.
Default user name	User Defined Field	Name used for a generic account that is required when you choose Auto Logon. For systems using Auto Logon, the default user account logs the user on to both Windows and the collaboration system.
Set Password	User Defined Field	Displays a dialog box where you set the password for the default user account (required for Auto Logon).

Appendix

iPower Admin Setup Menu

Admin Tools :: General :: Logon and Security

Logon

iPower Field	Type	Meaning
Standard Windows Logon	Radio button	Lets users log on by entering the user name and password for a local Windows user account, a Windows domain account, or the system default user account. Users have the privileges you define for these accounts.
Auto Logon	Check box	Lets users log on without entering a user name or password. The system displays the Logon dialog box with the default user name and the password already filled in. This means that anyone can use the system. Users have the privileges defined for the default user account.
Default user name	User Defined Field	Name used for a generic account that is required when you choose Auto Logon. For systems using Auto Logon, the default user account logs the user on to both Windows and the collaboration system.
Set Password	User Defined Field	Displays a dialog box where you set the password for the default user account (required for Auto Logon).

Appendix

iPower Admin Setup Menu

Admin Tools :: General :: Logoff and Standby

Logoff

iPower Field	Type	Meaning
Show logoff reminder after call	Check box	Specifies that the system should remind the user to log off at the end of each call.
Log off automatically after _ minutes	Check box Pull down menu	Number of inactive minutes until the system logs the user off and restarts the computer. The default setting is 20 minutes. After you select this option, you must restart your computer. .
Countdown for _ seconds	Pull down menu	Number of seconds before automatic logoff that the system begins showing the time left before logoff

Standby

iPower Field	Type	Meaning
Put the system in standby mode after _ minutes of inactivity	Check box Pull down menu	Number of minutes after which the system goes into Standby mode. Make sure that the number of minutes you enter here is less than the number you enter for automatic logoff, or else the system will log off before it can go into Standby mode.

Appendix

iPower Admin Setup Menu

Admin Tools :: General :: Monitor

Monitor

iPower Field	Type	Meaning
Use second monitor	Check box	Check the box if your system uses a second monitor. The system automatically sets the second monitor's type (NTSC or PAL) to match the main camera type.
Picture-in-Picture (PIP) Position on Second Monitor	Radio button	If you are using a second monitor with your system, you can change the position of the PIP (Picture-in-Picture) on the second monitor. The default setting is Bottom Right. Changes to this setting take effect immediately.

Appendix

iPower Admin Setup Menu

Admin Tools :: ISDN :: ISDN Configuration

Configuration

iPower Field	Type	Meaning
Allow ISDN calls on this system	Check box	Check this box to allow ISDN calls to be made to and from this system.

Advanced ISDN Configuration

iPower Field	Type	Meaning
Use local number filter for Multi-Subscriber Number (MSN) line	Check box	For lines used by multiple devices, allows the system to filter out calls to devices other than the videoconferencing system. This option is set automatically for 5ESS Multipoint, 5ESS Point-to-Point, or DMS 100.
Allow rate adaption to 56 kbps if 64 kbps fails	Check box	Allows the system to use 56 kbps to redial connections that fail at 64 kbps
Send this system's Calling Party Number to near-end network or PBX	Check box	This feature includes the system's phone number in the call request sent to the network. Some networks or PBXs require this information; others prohibit it. In addition, some networks need this information for Caller ID to work correctly.
Transmit a Sending Complete information element	Check box	By default, used for Euro ISDN, NET3 (Taiwan), and VN3.
Number type	User Defined field	By default, used for protocols and switch types other than 5ESS Point-to-Point and 5ESS Multipoint.
Number plan	User Defined field	By default, used for protocols and switch types other than 5ESS Point-to-Point and 5ESS Multipoint.

Appendix

iPower Admin Setup Menu

Admin Tools :: ISDN :: ISDN Bandwidth

Bandwidth

iPower Field	Type	Meaning
Standard	Radio button	Rate used when a user chooses Standard as the bandwidth for a call.
Premium	Radio button	Rate used when a user chooses Premium as the bandwidth for a call.
Default	Radio button	Rate used when a user doesn't specify a bandwidth for a call
Always restrict call bandwidth to 56 kbps per channel	Check box	Forces calls to connect at 56 kbps per channel. (This setting is also known as "Restricted.")

Line Use and Line Reservation

iPower Field	Type	Meaning
Use this line for voice-add and voice-only calls	Pull down menu	The line you want to use for voice calls. Line 4 is the default.
Reserve this line for voice	Check box	Restricts this line exclusively to voice transmission. To use the line for either voice or video, leave the box unchecked.
Use this line for network management via RAS:	Pull down menu	Lets administrators use a RAS (Remote Access Server) connection to manage and configure the system. If you have already specified a line for voice calls, you cannot use the same line for remote management.
Reserve this line for network management	Check box	Restricts this line exclusively for network management.

Appendix

iPower Admin Setup Menu

Admin Tools :: ISDN :: IMUX Setup

IMUX Setup

iPower Field	Type	Meaning
IMUX type	Pull Down menu	None The external network device does not use rate codes, or users prefer to dial the code themselves. DICA OASIS The system is attached to a DICA OASIS IMUX. The system will automatically generate rate codes for outgoing calls based on this IMUX type. Lucent Multiband The system is attached to a Lucent Multiband IMUX. The system will automatically generate rate codes for outgoing calls based on this IMUX type. Other The system is attached to an IMUX that uses rate codes, but not to one of the known types listed above. Please fill in the table so the system can generate rate codes for outgoing calls.
IMUX Call Mode	Pull Down menu	Dialed This is the default mode. The system can place an outgoing call by dialing a number. It can also receive incoming calls. DCE Signaled (non-dialed) The network does not need a phone number to route a call. Typically, the network is pre-configured to a specific destination. V.35/RS-449 control leads signal the start and end of a call. DCE Dedicated (non-dialed) The network provides a permanent connection. The V.35/RS-449 control leads are constant and do not signal the start or end of a call. Instead, the system uses framing patterns in the transmitted and received data to signal the start and end of a call.
Maximum call rate	Pull down menu	Call rate supported by IMUX box.
IMUX Code setup	Table	Please refer to the iPower administrator user guide.

Appendix

iPower Admin Setup Menu

Admin Tools :: ISDN :: Gateway Setup

Gateway Setup

iPower Field	Type	Meaning
Use gateway for outgoing ISDN and voice calls	Pull Down menu	Specify whether to use a near-end gateway as the default for all outgoing calls. If users want to use ISDN for a call, they can override this setting in the Advanced Call Options dialog box. If you use a gateway for outgoing calls, you must also configure a gatekeeper.
Gateway(s)	Pull Down menu	List of gateways available for use by this system. You can configure gateways for this system even if you do not specify a default near-end gateway for calls.
Set as Default	Pull down menu	Specifies that the selected gateway should be used for all outgoing video calls from this system. Users can choose a different gateway for a call in the Advanced Call Options dialog box.

Appendix

iPower Admin Setup Menu

Admin Tools :: LAN :: LAN Configuration

LAN Configuration

iPower Field	Type	Meaning
Allow LAN (H.323) calls on this system	Check box	Lets the system make LAN calls, provided there is a LAN connection and TCP/IP has been configured.

Admin Tools :: LAN :: Gatekeeper setup

Gatekeeper Setup

iPower Field	Type	Meaning
Use a gatekeeper	Check box	Specifies that your network uses a gatekeeper. If your system uses gateways, then it must also be configured to use a gatekeeper.
Specify the Gatekeeper	Radio button	Allows you to manually select a gatekeeper.
Gatekeeper DNS name or IP address	User defined field	The DNS name or IP address of the collaboration system on which the gatekeeper is installed.
Automatically find a Gatekeeper	Radio button	Allows the iPower system to select a gatekeeper automatically. If the system locates a gatekeeper, it displays the IP address automatically.

LAN Call Dialing

iPower Field	Type	Meaning
Allow E.164 numbers to be used for outgoing LAN calls	Check box	Lets the system place calls using extension numbers, provided there is a LAN connection and TCP/IP has been configured.

PathNavigator Conference On Demand

iPower Field	Type	Meaning
Use ISDN to initiate multipoint calls from this system	Check box	Specifies that all multipoint calls initiated by this system must be ISDN. This setting is available only for systems configured to use a PathNavigator gatekeeper.

Appendix

iPower Admin Setup Menu

Admin Tools :: LAN :: LAN Bandwidth

Outgoing Call Bandwidth

iPower Field	Type	Meaning
Standard	Pull down menu	Bandwidth used when the user chooses to make a call at the Standard rate.
Premium	Pull down menu	Bandwidth used when the user chooses to make a call at the Premium rate.
Default	Pull down menu	Bandwidth used automatically when the user does not choose a rate for a call.

Incoming Call Bandwidth

iPower Field	Type	Meaning
Maximum bandwidth	Pull down menu	Used by the gatekeeper to control the bandwidth of calls over the network. The highest setting is used, unless the gatekeeper requests that the bandwidth be reduced.

Appendix

iPower Admin Setup Menu

Admin Tools :: Audio :: Audio Preferences

Audio algorithm for ISDN (H.320) and LAN (H.323) calls

iPower Field	Type	Meaning
Audio algorithm for ISDN calls	Pull down menu	Please refer to the iPower administrator guide for the specifics of each protocol.
Audio algorithm for LAN calls	Pull down menu	Please refer to the iPower administrator guide for the specifics of each protocol.

Encoding law for G.711

iPower Field	Type	Meaning
Automatic a-law μ-law	Radio button	Sets the G.711 encoding law to use when a video call begins. The μ-law is used in North America and some parts of Japan. The a-law is used in most European countries and parts of Japan.

Admin Tools :: Audio :: Audio Inputs

Microphone

iPower Field	Type	Meaning
Use echo cancellation (IDEC)	Check box	Integrated Dynamic Echo Cancellation (IDEC) automatically cancels the echoes caused when microphones pick up sounds coming from the monitor's speakers. Keep echo cancellation enabled for normal use..
Use noise suppression	Check box	Filters out background noise from your videoconference, such as air conditioners or ventilation system noise. Keep automatic noise suppression enabled for normal use.
Use Automatic Gain Control (AGC)		Lets the far end hear a constant sound level, even when the sound level changes at the near end. For example, when a speaker at the near end moves away from a microphone, the far end detects no difference in volume. Keep this feature enabled for normal use.

Auxiliary Audio input

iPower Field	Type	Meaning
Use Automatic Gain Control (AGC) for auxiliary audio source	Radio button	Adjusts Automatic Gain Control for additional audio inputs (such as a VCR) in order to keep them consistent with PowerMic volume levels, so that the volume does not change as people move or different people speak.

Appendix

iPower Admin Setup Menu

Admin Tools :: Video :: Video Preferences

Video Algorithm

iPower Field	Type	Meaning
Video algorithm for ISDN calls	Pull down menu	This video algorithm determines the encoding law used on calls over an ISDN network. For instructions on choosing the algorithm, see the iPower administrator guide.
Video algorithm for LAN calls	Pull down menu	This video algorithm determines the encoding law used on calls over a LAN network. For instructions on choosing the algorithm, seethe iPower administrator guide.

Flicker Reduction

iPower Field	Type	Meaning
Check this to eliminate video artifacts caused by using an NTSC camera and 50 Hz fluorescent lighting.	Check box	Check or uncheck the box, depending upon the type of monitor and lighting.

Dual Images

iPower Field	Type	Meaning
Enable (Share bandwidth between People and Content)	Radio button	Enables the iPower collaboration system to share bandwidth between People and Content when Content is being shown. This allows conference participants to see both People and Content simultaneously.
Allow system to dynamically adjust People and Content bandwidth allocation]	Check box	Select this option if you want the system to allocate bandwidth to the video source (People or Content) that needs it the most at any given time. For example, if a conference participant is presenting a slide show, the system provides more bandwidth to Content when the participant changes a slide.
Disable	Radio button	Use Disable only when you want to allow more bandwidth for content images so they can be transmitted with greater clarity.

Appendix

iPower Admin Setup Menu

Admin Tools :: Video :: Cameras and Video Sources :: Main Camera

Main Camera to Use

iPower Field	Type	Meaning
Standard main camera	Radio button	Standard main camera refers to the camera that is attached to the front of the computer unit. .
Optional main camera	Radio button	Optional main camera refers to a camera (such as the PictureTel 80) that is attached to the back of the computer unit.

Admin Tools :: Video :: Cameras and Video Sources :: For all video sources

Settings

iPower Field	Type	Meaning
Always Appears in the People and Content list	Check box	Shows this source in the People and Content list even when the source is disconnected.
Camera or video source label (optional)	User Defined field	Name that appears in the People and Content list.
Preferred capture resolution	Pull down menu	Resolution to use for the selected camera or video source. Not all sources support all resolutions. If you choose a resolution higher than the source supports, the system will fall back to the highest supported resolution. Please refer to the iPower Administrator's guide for more information on default settings for video resolution.

Video Source type

iPower Field	Type	Meaning
People Content	Radio button	Determines whether the source will appear in the People list or the Content list, and whether it follows the display rules for People or Content sources.

Appendix

iPower Admin Setup Menu

Admin Tools :: Video :: Camera Control and VCR

Camera Control

iPower Field	Type	Meaning
Allow far-end sites to control the camera on this system	Check box	Lets participants at the other site move your camera, if their system supports this feature.
Allow near-end Automatic Camera Pointing	Check box	Lets you use the remote control to turn Automatic Camera Pointing on and off.

Pan Direction of Near End Cameras

iPower Field	Type	Meaning
Normal	Radio button	Behaves in the same manner as a scroll bar. For example, press the right arrow to look further to the right on the monitor; press the left arrow to look further to the left. This is the recommended setting.
Mirrored	Radio button	Makes the camera move to the right when you press the right arrow.

VCR Setup

iPower Field	Type	Meaning
One VCR	Radio button	Use one VCR for either recording or playback.
Two VCRs	Radio button	Use two VCRs, one VCR for recording and one VCR for playback.

Appendix

iPower Admin Setup Menu

Admin Tools :: Directory :: Directory Options

Directory Options

iPower Field	Type	Meaning
Local Directory (store on system)	Radio button	Specifies that users can make calls from a directory located on this system.
Central and personal Directories (stored on an LDAP-compatible server)	Radio button	Specifies that users can choose to use a centrally-maintained read-only directory or a personal directory that they manage themselves. Both of these directories are located on a remote server.

Admin Tools :: Directory :: Central Directory and Server Settings

Central Directory Server Settings

iPower Field	Type	Meaning
Server DNS name	User defined field	The server on which the Central Directory resides.
Server IP address	User defined field	An alternate way for the system to find the Central Directory. If your network assigns IP addresses dynamically, leave this field blank. If you enter an IP address here, the system will ping the LDAP server when you leave this page.
Port number	User defined field	If this is the only LDAP server on your network, use port 389 (the default LDAP server port number). If your network already has another LDAP server that uses this port number, enter a different port number to use.
Directory service root	User defined field	The database for the visual collaboration system directory on the LDAP server. You can get this information from the LDAP server administrator.
Server type	User defined field	The type of LDAP server. Netscape is the default server type. You can get this information from the LDAP server administrator.
Server Access Account name	User defined field	The system's account name on the LDAP server. You can get this information from the LDAP server administrator.

Appendix

iPower Admin Setup Menu

Admin Tools :: Utilities :: File Transfer

File Transfer

iPower Field	Type	Meaning
Allow incoming file transfers during a conference.	Check box	Allows files to be transferred from another system.

Admin Tools :: Utilities :: Readiness Monitoring

Components to Monitor

iPower Field	Type	Meaning
Remote devices (remote control and LAMB)	Check box	Monitors low battery state.
Color depth and resolution	Check box	Monitors the graphics board's capability.
Camera(s)	Check box	Monitors whether the main camera is plugged in and ready.
Microphone(s)	Check box	Monitors whether a microphone is plugged in and working.
Document Server(s)	Check box	Monitors the system's ability to communicate with the Document Server. Monitors the system's ability to retrieve and store documents.
Gatekeeper	Check box	Monitors the system's ability to communicate with the gatekeeper
Central Directory Server	Check box	Monitors the system's ability to communicate with the Central Directory server. Monitors the system's ability to retrieve and store numbers.

Appendix

iPower Admin Setup Menu

Admin Tools :: Utilities :: Network Management

Network Management

iPower Field	Type	Meaning
Allow WebRemote Management	Check box	Allows administrators to configure and manage the system using a web browser.

SNMP Setup

iPower Field	Type	Meaning
Allow management via SNMP	Check box	Allows administrators to manage the system remotely using SNMP.
Community String:	User defined field	Defines security characteristics between the agent and SNMP management stations. It serves as a kind of password for the system, defined by the agent. The community string determines access privileges between the agent and management stations, such as none or read-only.
Management station IP address	User defined field	List of management stations that will be receiving notifications from the SNMP agent.
Enable support for the Microsoft subagents	Check box	

Admin Tools :: Utilities :: Custom Control

Custom Control

iPower Field	Type	Meaning
This system can be controlled by a custom control panel that uses the iPower Protocol. The control connects through the serial port.	Check box	Allows you to use a custom control panel with your iPower system as long as that control panel uses the iPower Control Protocol. You can continue to use the iPower keyboard and remote control along with the custom control panel.

Appendix

iPower Admin Setup Menu

Admin Tools :: Utilities :: Internal Multipoint

Default Multipoint Preference

iPower Field	Type	Meaning
PathNavigator	Radio button	Uses available multipoint unit registered with PathNavigator
Internal Multipoint	Radio button	Initiates a multipoint conference using the iPower system.
Allow internal multipoint conferences on this system	Check box	Allows this endpoint to use embedded MCU for multipoint conferences.

Default Video Display

iPower Field	Type	Meaning
Voice-activated (recommended when sharing content video)	Radio button	Participants in a multipoint conference view the current speaker or view Content.
Continuous presence	Radio button	Participants in a multipoint conference view up to four sites (People or Content) simultaneously in a quadrant display.

Audio-Video Preferences

iPower Field	Type	Meaning
Audio algorithm	Pull down menu	The method used to compress the transmitted audio.
Video algorithm for voice-activated	Pull down menu	The method used to compress the transmitted video.

Appendix

SNMP MIB

```
POLYCOM-GMS-MIB DEFINITIONS ::= BEGIN

    IMPORTS
    Enterprises
                    FROM RFC1155-SMI
    OBJECT-TYPE
                    FROM RFC-1212
    DisplayString
                    FROM RFC1213-MIB
    TRAP-TYPE
                    FROM RFC-1215;

    -- - - - - - - - -
    -- Global Defines
    -- - - - - - - - -
    polycom                         OBJECT IDENTIFIER ::=       { enterprises 2684 }
    polycomVideo    OBJECT IDENTIFIER ::=       { polycom 1 }
    polycomAudio    OBJECT IDENTIFIER ::=       { polycom 2 }
    polycomData             OBJECT IDENTIFIER ::=       { polycom 3 }
    polycomNetwork          OBJECT IDENTIFIER ::=       { polycom 4 }

    -- - - - - - - - - - - -
    -- Management Products
    -- - - - - - - - - - - -
    polycomGMS              OBJECT IDENTIFIER ::=       { polycomNetwork 1 }

    -- - - - - - - - - - - - - -
    --
    -- Polycom ReadiManager LX100
    --
    -- - - - - - - - - - - - - -
    polycomGMSService               OBJECT IDENTIFIER ::=       { polycomGMS 1 }
    polycomGMSNode                          OBJECT IDENTIFIER ::=       { polycomGMS 2 }

    -- - - - - - - - - - - -
    -- GMS Service Variables
    -- - - - - - - - - - - -
    polycomGMSVersion       OBJECT-TYPE
      SYNTAX                DisplayString
      ACCESS                read-only
      STATUS                mandatory
    DESCRIPTION     "GMS server software version string."
        ::=         { polycomGMSService 1 }
```

Appendix

SNMP MIB

```
------------
    -- GMS Node Variables
    -------------
    polycomGMSNumberOfManagedNodes          OBJECT-TYPE
      SYNTAX                INTEGER
      ACCESS                read-only
      STATUS                mandatory
    DESCRIPTION   "Total number of managed nodes in the GMS database."
        ::=       { polycomGMSNode 1 }

    polycomGMSNodesActive   OBJECT-TYPE
      SYNTAX                INTEGER
      ACCESS                read-only
      STATUS                mandatory
    DESCRIPTION   "Number of nodes that are actively responding to GMS requests."
        ::=       { polycomGMSNode 2 }

    polycomGMSNodesInactive OBJECT-TYPE
      SYNTAX                INTEGER
      ACCESS                read-only
      STATUS                mandatory
    DESCRIPTION   "Number of nodes that can not be contact and are reporting events to GMS."
        ::=       { polycomGMSNode 3 }

    polycomGMSNodesInCall   OBJECT-TYPE
      SYNTAX                INTEGER
      ACCESS                read-only
      STATUS                mandatory
    DESCRIPTION   "Number of nodes in a conference call."
        ::=       { polycomGMSNode 4 }

    polycomGMSNodesWithErrors       OBJECT-TYPE
      SYNTAX                INTEGER
      ACCESS                read-only
      STATUS                mandatory
    DESCRIPTION   "Number of nodes reporting errors."
        ::=       { polycomGMSNode 5 }

    polycomGMSHelpRequests OBJECT-TYPE
      SYNTAX                INTEGER
      ACCESS                read-only
      STATUS                mandatory
    DESCRIPTION   "Number of nodes reporting user help requests."
        ::=       { polycomGMSNode 6 }
```

Appendix

SNMP MIB

```
-- - - - - - - - - - -
--
-- Trap Definitions
--
-- - - - - - - - - - -
nodesInactive TRAP-TYPE
ENTERPRISE      polycomGMS
VARIABLES       { polycomGMSNodesInactive }
DESCRIPTION     "Indicates the inactive nodes threshold has been hit."
    ::= 1

nodesInCall TRAP-TYPE
ENTERPRISE      polycomGMS
VARIABLES       { polycomGMSNodesInCall }
DESCRIPTION     "Indicates the nodes-in-call threshold has been hit."
    ::= 2

nodeErrors TRAP-TYPE
ENTERPRISE      polycomGMS
VARIABLES       { polycomGMSNodesWithErrors }
DESCRIPTION     "Indicates the nodes-with-errors threshold has been hit."
    ::= 3

helpRequests TRAP-TYPE
ENTERPRISE      polycomGMS
VARIABLES       { polycomGMSHelpRequests }
DESCRIPTION     "Indicates the help request threshold has been hit."
    ::= 4

END
```

Appendix

Communication Service Ports used for Polycom Management Software Applications

Communication across the network for Polycom products requires the usage of certain Internet service ports. Polycom ReadiManager LX100 communicates with the web client, video devices and other services. In the tables below, "Direction" indicates how a particular communication is initiated; for example, "Web browser➞ReadiManager LX100" means the web browser opens a connection with ReadiManager LX100 which is then used to interchange information.

The Web Client

The web client is a web browser running on a PC station that is used to access ReadiManager LX100, Path Navigator, or video devices. The table below shows the protocol and port used. The ports listed must be open for two-way communication.

Direction	Protocol	Ports	Purpose
Web browser➞ ReadiManager LX100	HTTP: TCP	80	Web client communicating with ReadiManager LX100
Web browser ➞video devices except for ViaVideo	HTTP: TCP	80	Web client communicating with video devices user interface
Web browser ➞ViaVideo	HTTP: TCP	3603	Web client communicating with ViaVideo web interface
Web browser ➞Other Devices web server	HTTP: TCP	Arbitrary port (assigned by admin when adding this device to ReadiManager LX100)	Web client communicating with Other Devices web interface
Web browser ➞ PathNavigator	HTTP: TCP	80	Web client communicating with PathNavigator

Polycom ReadiManager LX100 and video devices communications

Different features offered in ReadiManager LX100 use different ports when communicating with video devices. The port most often used is port 80. However, other protocols such as FTP and Telnet require the usage of ports other than 80.

Appendix

ReadiManager LX100 to / from ViewStation/V Series model

Direction	Protocol	Ports	Purpose
ReadiManager LX100 ➞ video devices	HTTP: TCP	80	Monitoring and Management
Video devices ➞ ReadiManager LX100	HTTP: TCP	80	Monitoring and Management
ReadiManager LX100 ➞ video devices	FTP: TCP	21	Management, Provisioning, SoftUpdate
Video devices ➞ ReadiManager LX100	FTP (data): TCP	Dynamic port	Management, Provisioning, SoftUpdate
ReadiManager LX100 ➞ video devices	Telnet: TCP	23	Diagnostic Logging (next release of ReadiManager LX100)
Video devices ➞ ReadiManager LX100	Proprietary: TCP	3601	Global Address Book

ReadiManager LX100 to / from iPower (model)

Direction	Protocol	Port	Purpose
ReadiManager LX100 ➞ Video devices	HTTP: TCP	80	Monitoring and Management
Video devices ➞ ReadiManager LX100	HTTP: TCP	80	Monitoring and Management

ReadiManager LX100 to / from ViaVideo

Direction	Protocol	Ports	Purpose
ReadiManager LX100 ➞ Video devices	HTTP: TCP	3603	Monitoring and Management
Video devices ➞ ReadiManager LX100	HTTP: TCP	80	Monitoring and Management

ReadiManager LX100 to / from WebCommander, PathNavigator (EP)

Direction	Protocol	Ports	Purpose
ReadiManager LX100 ➞ endpoint	HTTP: TCP	80	Monitoring and Management

Appendix

ReadiManager LX100 to /from Other Devices (EP)

Direction	Protocol	Ports	Purpose
ReadiManager LX100 ➞ endpoint	HTTP: TCP,	Arbitrary port (assigned by admin when adding this device to ReadiManager LX100)	Monitoring and Management

Polycom ReadiManager LX100 communications with other services

ReadiManager LX100 uses other services to replicate information to other databases or to perform other tasks such as sending remote alerts to an SNMP server. Non-HTTP protocols are used here and require ports other than 80 to be opened.

ReadiManager LX100 to / from other Services

Direction	Protocol	Ports	Purpose
ReadiManager LX100 ➞ ILS	LDAP: TCP	389 or 1002	Global Address Replication to ILS server
ReadiManager LX100 ➞ LDAP	LDAP: TCP	389	Global Address Replication to LDAP server
ReadiManager LX100 ➞ SNMP	SNMP: UDP	162	Remote Alerts to an SNMP server
ReadiManager LX100 ➞ SMTP	SMTP: TCP	25	Remote Email Alerts

Troubleshooting Guide

Running Polycom ReadiManager LX100

How do I calculate Greenwich Mean Time offset?

Click on date and time in the control panel on your computer. A pull down menu will state what the GMT offset is at your location.

When the server address is entered, the browser page appears with an HTTP 404 error.

The browser cannot find the default web page. Default website location may not properly set. On IIS, check the path on the Default Website properties for the correct location. It should be "drive:/Inetpub/wwwroot" where ReadiManager LX100 web folders are stored under.

Why can't I access the web interface of ViaVideo but can with a ViewStation through the Manage System feature of ReadiManager LX100?

ViaVideo must be password protected before ReadiManager LX100 can access the web interface. By default, ViaVideo does not have password protection enabled. To set the password in ViaVideo, navigate to System info > Global Services > Global Management in the ViaVideo web interface. On this page, there is a Web Access Password field. Once a password is entered, this unit's web interface can be accessed through ReadiManager LX100 when the login in information is filled in through the Manage System feature.

What is "Other" device type and how to use it?

"Other" device type can be any web server that supports HTTP. What is required is the ability to understand HTTP web request. For example, Sony® Contact 1600 has a web server which can be monitor by using "Other" device type. When adding using "Other" device type, user specifies the IP address, the port, and the HTML file (if it is not the default.htm file). ReadiManager LX100 will be able to detect whether the system is online or offline based on the response string of that device.

Does ReadiManager LX100 work through the firewall?

This depends on the setup of the video network behind the firewall. As long as the IP address of the managed endpoints aren't translated through NAT (Network Address Translation), port 80 (HTTP), port 21 (FTP), and port 3601 (GAB protocol), ReadiManager LX100 will function properly. Some firewall policies don't allow request outside the firewall to be made. If this is the case, ReadiManager LX100 can't manage the endpoints inside the network. It is then required to have policy change to allow TCP request from the ReadiManager LX100 server.

Troubleshooting Guide

Installation

Manager URL

During installation I was prompted to enter a URL address for my server, however my server has multiple addresses. Which address do I enter?

If the server has multiple IP addresses assigned to it and only one of them is used by IIS, then you would want to enter the IP address used by IIS. For instance, if your server is using addresses 123.45.6.1, 123.45.6.2, 123.45.6.3 and 123.45.6.4 and IIS is using 123.45.6.4, you will need to enter the address 123.45.6.4 because ReadiManager LX100 will select the first address, 123.45.6.1, by default.

My server uses DHCP and its address is likely to change, what should I enter when prompted to enter the URL address for the server.

ReadiManager LX100 also accepts WINS name as opposed to only using IP addresses for the Manager URL.

My server IP address has changed, how do I change the Manager URL?

The Manager URL can only be changed during installation. If you need to change the URL, you will have to re-run the ReadiManager LX100 installation program. When re-running the installation program, choose "YES" when prompted to save existing files otherwise all data will be lost.

Troubleshooting Guide

System Management

Call Status

How can my video endpoint be in a call when the line status shows a red arrow pointing down?

If the video endpoint is configured to use both IP and ISDN, it can still make IP calls even if the ISDN line is down. Also, ReadiManager LX100 shows the red arrow in the system list whenever any of the ISDN lines is down. Therefore, a video endpoint configured to use four ISDN lines (512K) could have one line down, and yet still be able to make a call using the remaining three ISDN lines (384K).

Video endpoints do not display the in-call icon when they are in a call and sometimes display the in-call icon when not in a call.

This is usually caused by having an incorrect Manager URL. Select a video endpoint and click on the Management tab to view the Manager URL. Make sure that the IP address shown is the one used by your ReadiManager LX100 server. If it is different, you will have to re-install ReadiManager LX100 to change the Manager URL. This can also be caused by video endpoints trying to send status information to a ReadiManager LX100 server behind a firewall. If ReadiManager LX100 is trying to manage a video endpoint outside the firewall, be sure that the firewall allows bi-directional traffic between them on port 80.

Some of the video endpoints display line-problems when all of their lines are working soundly.

The Manager URL is not correctly entered in the video endpoint. Select a video endpoint and click on the Management tab to view the Manager URL. Make sure that the IP address shown is the one used by your ReadiManager LX100 server. If it is different, you will have to re-install ReadiManager LX100 to change the Manager URL.

Troubleshooting Guide

Search

Searches take a long time. How can I decrease the time it takes to search for systems?

You can decrease the amount of time Search takes by limiting the range to only the addresses that your endpoints are actually using. The time it takes to search a range is linear, and depends on the speed of your server, and the bandwidth of your network. Therefore, it takes twice as long to search a range of 200 addresses as it does to search a range of 100 addresses.

Can I search across multiple subnets?

Yes, as long as the subnets are contiguous.

The search function can not find all the video endpoints on our company wide network.

Here are the most likely reasons why the search function cannot find all the video endpoints

- Search will only find systems that have not already been added to the list
* Search will not find systems that are turned off or disconnected from the network
- Search may not find systems that are behind a firewall or within a network using Network Address Translation (NAT)

Adding Systems

When I performed the function Add System, my video endpoint failed to add onto the System list.

This can be caused by:

1. Entering the incorrect IP address of the video endpoint.
2. Trying to add a video endpoint when it is turned off.
3. Trying to add a video endpoint that has a password set.

If the message you get says "Could not add system", then either the IP address is incorrect, or the video endpoint is not responding. Try pinging the IP address of the video endpoint. If ping gets a reply, try to access the video endpoint's internal web server by entering its address in a browser window.

If the message you get says "You did not have the correct password for the system", then either the video endpoint has a password set, and you did not enter a password in the Add System window, or the password you entered is not the same as the password on the video endpoint. Verify that you have the correct password (Admin Password) for the video endpoint you are trying to add.

Do I have to go to every video endpoint and enter the IP address of the ReadiManager LX100 Server to manage the these endpoints?

If your video endpoint is on the LAN and you have added the system to the ReadiManager LX100 database, the IP address of the server will be sent to the system.

The endpoint appears in the Global Directory as a registered entry, however it does not appear in the System Management list. Why is the endpoint not listed in the System list?

The endpoint probably has the Global Directory Server IP address configured correctly for the Global Address book settings. However, the endpoint was not added either through the "Search" or "Add System" Function ReadiManager LX100 can only manage systems when systems are added to the database via the above functions via the System Management page.

Software Update

Software Update Now doesn't work. I get the following status: "Failed", "Location Unspecified" and "File does not exist".

LOCATION UNSPECIFIED:
The softupdate.exe for a specific model indicates that the file was not uploaded onto the server.

FILE DOES NOT EXIST:
The softupdate.exe file was uploaded onto the server but was deleted from the server through some means other than ReadiManager LX100.

FAILED:

This usually happens because ReadiManager LX100 does not have the correct password for the video endpoint, or because the video endpoint was turned off or disconnected from the network.

You can find out the cause of the failure by looking at the update log for that system. The update log files are usually located in the drive:\Polycom\PWX\log\1_1_1_1_@_yyyy-mm-dd-ss.logon the ReadiManager LX100 server machine, and they are named with the IP address of the ViewStation, followed by the date and time that the update was run. For instance, the file 111_11_11_111_@_2000-11-01-10-57-38.log is for the update that was run at 10:57:38, on Nov. 1, 2000, for the ViewStation at the address 111.11.11.111. Within this log, the message "Error in password" means that ReadiManager LX100 does not have the correct password for this ViewStation. The message "Could not connect" means that the ViewStation was not responding.

Troubleshooting Guide

Account Validation

I have created several accounts and set Account Validation on ViewStation to enable. When making video call, ViewStation always drop call even when I enter the correct account. To me, Account Validation does not work.

Account Validation only works with the first URL in the Manager URL list. If your ViewStation is being managed by more than 1 ReadiManager LX100, or if a previous ReadiManager LX100 was shut down, and the ViewStation was then added to a new ReadiManager LX100, then you could have more than 1 URL in the Manager URL list on the ViewStation.

Select that ViewStation in the Systems list, and click on the Management tab. You will see the list of URL's for that ViewStation. Make sure that the address of ReadiManager LX100 server where you created the accounts is in the first position.

POLYCOM Support

If you have any other questions on Polycom ReadiManager LX100, contact us at:

1.800.POLYCOM or 408.474-2050

techsupport@polycom.com

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